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ABSTRACT

This final report and curriculum guide are products of a project conducted to improve existing at-risk programs through cooperation between vocational and academic personnel by coordinating lesson plans. The following project activities are described: (1) a literature review on the diverse needs of at-risk students enrolled in an alternative to social promotion program containing a vocational component; (2) development of a model program implementation design that addressed course requirements, counseling and guidance strategies, career awareness/investigation leading to vocational assessment, and generalizable skills; (3) development of a curriculum that coordinated the essential elements of academic courses with vocational education; (4) description of effective teaching strategies; and (5) piloting in five school districts. The 12-page final report (plus appended correspondence and evaluation forms) is followed by model lesson plans for the coordinated curriculum for grades 7 and 8. An implementation guide is provided. The lesson plans are given for four interdisciplinary subjects: computer technology/mathematics, English/small engine repair, U.S. history/business office services, life management skills/reading, and earth science/home economics. Components of each lesson plan are as follows: lesson topic(s), required resources/arrangements, teaching method(s), introduction, learning activity, delivery of content, student evaluation, summary, and handouts or transparency masters. (YLB)

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ALTERNATIVES TO SOCIAL PROMOTION PROGRAM AT GRADES 7 & 8

FINAL REPORT

JERRY L. WIRCENSKI, PH.D., PROJECT CO-DIRECTOR
MICHELLE D. SARKEES, PH.D., PROJECT CO-DIRECTOR
UNIVERSITY OF NORTH TEXAS

In Cooperation With
TEXAS EDUCATION AGENCY
Austin, Texas

June 30, 1990

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ALTERNATIVES TO SOCIAL PROMOTION PROGRAM AT GRADES 7 & 8

Final Report
for the period covered:
From July 1, 1989 to June 30, 1990

Submitted by:

Jerry L. Wircenski, Project Co-Director

Michelle A. Sarkees
Michelle Sarkees, Project Co-Director
University of North Texas

The project reported herein was performed through a contract with the Texas Education Agency under the provisions of the Carl D. Perkins Vocational Education Act (Public Law 98-524). Contractees undertaking such projects are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Texas Education Agency position or policy.

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ACKNOWLEDGEMENTS

This project was funded through the Texas Education Agency and was overseen by Eleanor Mikulin. The active participation and professional commitment of personnel from several school districts has been instrumental in bringing this project to a successful conclusion. The participating districts and personnel were: Fort Worth Independent School District Vocational Director, Bettie Herring and Director of Trade and Industrial Programs, David Greer; Morningside Middle school Principal, Jim Sickler; Garland Independent School District Vocational Director, Phil Gilbreath; Webb Middle School Principal, Jim Lewis, homemaking teacher, Linda Ward, and science teacher, Joan Brunet; Hurst-Euless-Bedford Independent School District Vocational Director John Clanton; Bedford Junior High Principal, Erwin Matthews, English teacher Trish Bingham, and general mechanical repair teacher, Joel Graves; Lewisville Independent School District Vocational Director, Brad Killingsworth; Millikin Middle School Principal, Jerry Gray, office business services teacher, Linda Knight and social studies teacher, Trina Gibbs.

The guidance and direction of the project's Advisory Committee has been inspiring and fruitful. We would like to express our gratitude to Eleanor Mikulin, Sheila Grant-Gold, Jim Lieber, Carol Marshall, Sandy McCain, Bobby Singleton, Odessa Ravin, Mary Hendrix, and Bob Evans for their dedicated input.

Many thanks to the publishers of materials used in two of the lesson plans. Mr. Bill Ryan of Clearvue, Inc. has been very cooperative in facilitation the use of "1787: A Simulation." We would also like to express our gratitude to BMA Publishers for permitting us to use their text book entitled, "Essentially Yours" by M.D. Ammerman.

The writing coordinators who held integral positions in moving the concept of coordination to actual lesson plans were Susan Bonesteel, Dr. Donna Cunningham, Mike Gentry, Dixie Porcher, and Chris Wolverton. The project staff included Guidance and Counseling Specialist, Dr. Pat Mcleod; Program Specialist, Suzie Barger; Research Associate, Marty Barbieri; and Research Associate, Jabar Omar.

PROBLEM AREA

One of the most difficult issues to isolate is the reasons why at-risk students drop out of the educational system. The High School and Beyond Study (U. S. Department of Education, 1985) found that disadvantaged, at-risk students are three times more likely to drop out when compared to non-disadvantaged students. Current populations survey data reveal that there were approximately three million dropouts aged 16-24. Approximately 15% of these dropouts were white, 17%, black, and 31%, Hispanic.

The literature indicates that there is no single reason why at-risk learners leave school before graduation. In a study conducted by the U. S. Department of Education (National Center for Education Statistics, 1983), youth who did drop out of school did so for various reasons - school was not for them, 33.1%; poor grades, 33%; offered job or chose to work, 19.5%; married, 17.%; did not get along with teachers, 15.5%; had to support family, 11%; pregnancy, 10.9%. As the dropout rate in some Texas schools approaches 50%, educators must look more closely at the needs of at-risk students. Many at-risk students lack the basic skills and motivation to stay in school until graduation. As a result, the need for a program implementation design that can be modeled by local education agencies (LEA) is of utmost importance if the dropout rate for at-risk youth is to be reduced.

GOALS AND OBJECTIVES

The goal of this project was to improve existing programs through cooperation between vocational and academic personnel by coordinating lesson plans. The objectives of this project were as follows:

1. To review the diverse needs of at-risk students, identified in Title 19, Chapter 75.195, enrolled in an alternative to social promotion program containing a vocational component at grades seven and eight.

2. To develop a program implementation design that can be modeled by the LEA based on identified needs and services for the 7th and 8th grades alternatives-to-social promotion program. The model will address:

   a. all course requirements;
   b. counseling and guidance strategies;
   c. career awareness/investigation leading to vocational assessment; and
   d. generalizable skills (those which are basic, common and transferable within academic and vocational programs).

3. To develop curriculum which coordinates the essential elements of academic courses (English, mathematics, social studies, science and reading) with vocational education.

4. To describe effective teaching strategies to be used in serving the at-risk student.

5. To pilot the model in five diverse school districts.

DESIGN AND PROCEDURES

The project objectives were accomplished through the execution of the procedures approved by TEA. A description of these objectives and procedures follows:

Objective 1: To review the diverse needs of at-risk students, identified in Title 19, Chapter 75.195, who are enrolled in an alternative to social promotion program containing a vocational component.

Procedure 1 - Conducted literature searches relative to the special educational needs of students identified as "at-risk." Procedure 2 - Reviewed recent final reports from TEA at-risk projects.

Procedure 3 - Contacted TEA's Texas Dropout Information Clearinghouse.

Procedure 4 - Requested information from the National Center for Research in Vocational Education.

Procedure 5 - Requested materials from the Vocational Special Needs Library at Texas A&M University.

Procedure 6 - Reviewed materials from the Extension Instructional and Materials Center at the University of Texas at Austin and East Texas State University's Educational Development and Training Center.

Procedure 7 - Conducted a sampling of existing LEA at-risk programs.

Objective 2: To develop a program implementation design that can be modeled by the LEA based on identified needs and services for the 7th and 8th grades alternatives to social promotion program. The model will address:

- **a. all course requirements;**
- **b. counseling and guidance strategies;**
- **c. career awareness/investigation leading to vocational assessment; and**
- **d. generalizable skills (those skills which are basic, common and transferable within academic and vocational programs).**

Procedure - When teachers met to form writing teams, each teacher brought with him/her all course requirements (essential elements, scope/sequence charts, syllabi, texts, etc). After orientation to the project goals, the writing teams began their work by identifying shared generalizable skills and common essential elements. From these commonalities, the teachers selected topics for their coordinated lesson plan.

During writing workshops the teachers heard presentations on learning styles, addressing the needs of the special education student in the regular classroom and curriculum-based vocational assessment. Ideas and techniques from these presentations were to be used by the teachers when developing their coordinated plans.

The counselors from the five campuses represented by the teacher-writers were invited to participate in the advisory committee meetings for the project and were encouraged to attend a guidance conference specifically designed to help counselors serve "at-risk" students. The guidance workshop was held on March 30, 1990, in Denton, Texas in conjunction with the Professional

Improvement Conference for Vocational Guidance Programs. Topics addressed were: an update on career guidance in Texas, the status of vocational special needs education in Texas, transition from school to work, cooperative learning, a model for career development, serving pregnant students, career investigation, and how to access sources of financial aid.

Objective 3: To develop curriculum which coordinates the essential elements of academic courses (English, mathematics, social studies, science and reading) with vocational education.

Procedure 1 - Writing teams - One vocational teacher was paired with one academic teacher. These teachers were not selected because their courses seemed compatible or their classrooms were in the same area. Their selection was based upon mastery of their own course content and their willingness to work with their peers. The pairings formed for this project were: 1) general mechanical repair and English; 2) homemaking/life skills and reading; 3) business office systems and social studies; 4) computer technology and mathematics; and 5) homemaking/life skills and science.

Procedure 2 - Resources and materials supplied by project staff - The teachers used primarily their skills lists, scope and sequence charts, essential elements texts, and course syllabi. The project staff provided journal articles and research papers concerning education strategies for at-risk youth and the coordination of academic and vocational education. Writing teams heard the following presentations during the writing sessions:

Curriculum-based Vocational Assessment - Michelle Sarkees, project staff;

Learning Styles Assessment and Application - Carol Marshall, project advisory committee member; and

Addressing Special, Individual Needs In The Regular Classroom - Marty Barbieri, project staff.

Procedure 3 - Writers received information concerning: learning styles, alternate teaching strategies for individual needs in a group setting, curriculum-based vocational assessment, infusing career awareness into course content, and special education needs of at-risk youth.

Procedure 4 - Support activities planned to strengthen the cooperation between the academic and vocational classes: advisory board, application of skills activity, study teams, student-to-student tips file, student designed lesson plans, computer users group, and parent meetings. Meetings were held on each of the five participating schools' campuses among principal, academic and vocational teachers, and the project staff. Each supporting activity and a strategy for implementation on each campus were specifically discussed.

Procedure 5 - Advisory committee input - The first advisory committee meeting was held on September 26, 1989. The objectives and procedures were discussed at this meeting, as well as opportunities for input from the committee members.

The second advisory committee meeting was held on February 25, 1990, in Austin during the Vocational Special Needs Conference. Committee members had received copies of the lesson plans prior to coming to Austin and were prepared to discuss their suggestions for revisions at the meeting. The comments and suggestions made during this meeting were used in preparing materials for field-testing. A list of the advisory committee members and correspondence to the committee can be found in Appendix A.

Procedure 6 - Guidance and counseling workshop at the University of North Texas - The guidance workshop was held on March 30, 1990, in Denton, Texas, in conjunction with the Professional Improvement Conference for Vocational Guidance Programs. Topics addressed were: an update on career guidance in Texas, status of vocational special needs education in Texas, transition from school to work, cooperative learning, a model for career development, serving pregnant students, career investigation, and accessing sources of financial aid.

Procedure 7 - Writing teams meetings - Each team participated in two six-hour and three three-hour workshops. The first workshop was a six-hour orientation/work session. At this session, teachers were introduced to the idea of an integrated curriculum, given a rationale for a coordinated curriculum, and provided with the primary objective of the writing team. The specific objective of each team was to write or rewrite five instructional lessons on topics already in their course content. The writing was to be done in such a way that the lessons directly tied together both the academic and vocational knowledge and skills innate to the topic. Each writing team had the opportunity to discuss the writing objective, compare skills and knowledge presented in their classes, and set specific schedules for team meetings.

During subsequent writing sessions, teachers heard presentations on learning styles and meeting special educational needs in the "regular" or integrated classroom. These sessions were also a time for each writing team to report on their progress and review outlines of their instructional plans. The group was encouraged to ask questions, praise, share past experiences, and make suggestions for improvement. This process was integral in generating new ideas and giving team members a feeling of accomplishment.

Procedure 8 - A dissemination presentation was conducted at the Vocational Special Needs Statewide Conference in Austin, Texas. A description of the project and sample lesson plans were offered on February 25, 1990, during the Vocational Special Needs Conference in Austin.

Objective 4: To describe effective teaching strategies to be used in serving the at-risk student.

Procedure 1 - Writing teams workshops - Effective teaching strategies were made available at the workshops through presentations, written material, and through group discussions between writing teams and coordinators.

Procedure 2 - A staff literature search was conducted.

Procedure 3 - Staff review of existing LEA programs - Eleanor Mikulin at the Texas Education agency provided information to the project staff concerning current programs.

Procedure 4 - Writing teams meetings - In addition to the full-group writing teams meetings, each writing pair met briefly on an on-going basis and also with their writing coordinator periodically between full-group meetings in order to stay on schedule and to be prepared for the group meetings.

Objective 5: To pilot the model in five diverse school districts.

Procedure - School districts represented in the field test were: Ft. Worth, Garland, Hurst-Euless-Bedford, Lewisville, and Mansfield. The teacher/writers field tested the coordinated lesson plans in their classrooms between March 1 and May 15th, 1990. Each teacher completed an evaluation for each lesson taught and submitted it to the project staff. Lesson plan revisions were made based upon these field-test evaluations. The evaluation forms can be found in Appendix B along with the correspondence to the field test sites.

RESULTS AND ACCOMPLISHMENTS

The major result of this project was the coordinated curriculum developed for use with grades 7 and 8. Copies of the curriculum have been distributed to each of the Regional Education Service Centers in the state of Texas. For information on purchasing a copy of the curriculum, contact the Texas Education Agency in Austin, Texas. As stated earlier in this report, the five school districts that conducted the pilot model experienced an increased awareness of the benefits of cooperation between academic and vocational education classes and of the use of coordinated curricula.

EVALUATION PROCEDURES

The project's evaluation plan included several evaluation procedures. The first one was the advisory committee feedback which served to provide an overall direction to the project's activities. The second evaluation element was the project's monthly staff meeting. In such meetings, decisions and revisions were made with regard to the project's operational aspects. The last evaluation component was the evaluation form completed by teachers after field-testing the lesson plans. A copy of this evaluation form is included in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS

The following suggestions should be considered for persons who plan to write coordinated vocational/academic lesson plans:

1. Decide how teacher/writers will be given the time to meet and develop lessons. Options discussed by the participating teachers in this project were: use local inservice hours, hire substitutes for the teachers during meeting times, pay a stipend for work done outside school hours, or conduct the project cooperatively with a university or service center so that teachers

could receive AAT credit or college credit.

2. It is suggested that the number of integrated instructional plans be kept to a manageable number (in the case of this project, five) for each content area - English, mathematics, social studies, science, or reading. This makes the process much less cumbersome than a goal of developing an entire semester's plans. By writing a smaller number of instructional plans, teachers can keep the "end in sight" and the writing can be done in a spirit of enthusiasm and creativity. It is also important to field test the first group of lesson plans before writing another. It is the only way to make certain that these "interesting on paper" plans do, in fact, work in a classroom filled with students.

3. Teacher selection should be based on desire to participate in such activity, competence in their own teaching field, and flexibility in teaching style.

4. The use of a writing coordinator is strongly suggested. This third, objective person keeps the project on track and facilitates cooperation between the two teacher/writers. It may be helpful for this third person to have knowledge in serving special needs students, cooperative learning techniques, learning styles assessment and materials/environmental accommodations. An alternative use of the writing coordinator is as the actual developer of the lesson plans, rather than the editor. This would free the teachers' time to be used for selecting lesson topics, brainstorming new lesson delivery techniques, composing rough draft ideas for lessons, then field testing and making suggestions for

revision.

5. Use some classroom support activities, such as the ones included in this project, to raise the awareness of other teachers on campus about the philosophy and possibility of cooperative lesson planning.

SUMMARY

It was very interesting to experience the process of familiarization and coordination among the participating vocational and academic educators. These teachers discovered that they not only had more commonality in their courses than they had imagined, but that also shared a common interest in the search for instructional strategies for presenting their materials. There was a genuine excitement for the accomplishment of the writing teams' objective. This was obviously not going to be "busy work" following up on another theory of how to teach. The objective was actually a plausible activity that would be interesting to design and useful for the students. And best of all, it did not add to the existing teaching load because all topics came directly from their existing course outlines. The resulting lesson plans reflected the personality of the teachers in each writing team, but shared the vision of cooperative learning across the subject matter lines.

APPENDIX A
ADVISORY COMMITTEE MEMBERSHIP LIST AND CORRESPONDENCE

University of North Texas

College of Education
Occupational and Vocational Education

September 15, 1989

Chris Wolverton
7309 Long Canyon
Dallas, TX 75249

Dear Chris:

Thank you for agreeing to serve on the "Alternatives to Social Promotion for Grades 7 and 8" project advisory committee. We will meet on Tuesday, September 26, at Our Place Restaurant in Garland High School, 310 South Garland Avenue, from 10:30 am - 12:00 noon. We will have lunch served from 12:00 - 1:00 pm. A map is enclosed to help you locate the meeting place. In order to have an accurate count for lunch, please let either Marty Barbieri, (214) 296-4323, or Suzie Barger, (817) 267-3731 X-3397 or 565-3397, know by September 20, if you will be attending.

In this initial committee meeting we will review the objectives of the project, discuss procedures and time lines, and discuss means for receiving input from advisory committee members.

The findings and products of this project can provide much needed instructional support for Texas teachers who are serving at-risk students. I appreciate your willingness to share your experience and knowledge with our staff.

The project will pay round trip coach airfare or mileage for this meeting. We will have a travel form ready for your signature. Please keep your travel receipts. Reimbursement procedures will be outlined at the meeting.

I look forward to working with you this year. If you have any questions, please contact me at (817) 565-2714 or Suzie Barger.

Sincerely,

Jerry Wircenski

Jerry L. Wircenski
Professor
Trade and Industrial Education

JLW:sb
Enclosure

P.O. Box 13857 • Denton, Texas 76203-3857
AC 817/565-2093

^D

^F1^

Dear ^F2^:

I wanted to give you an update on the project activities for the "Alternatives to Social Promotion for Grades 7 and 8" project. The writing workshops have been held, the initial drafts of the cooperative lesson plans have been submitted by the writing teams and the background planning for the implementation of supporting activities has begun. The project office staff is entering the lesson plans onto computer so that editing can be done efficiently.

You will receive copies of the lesson plan drafts within the next few weeks. Please read through these plans carefully and mark any changes you feel are appropriate. We will review the lesson plans and your suggested revisions at our next advisory committee meeting to be held during the Vocational Special Needs Conference in Austin on February 25 - 27. The advisory meeting will be held on February 25 from 6:00 - 7:30 PM at the Marriott at the Capitol. Please check at the conference registration desk for the location.

Enclosed you will find a registration form for the conference. Please complete the form and mail as soon as you can. You will be responsible for making your own hotel registration and travel arrangements. If planning to fly to Austin, please make those reservations as soon as possible since the difference in fares for early booking can be substantial, and we would like to use project funds as prudently as possible. At the advisory committee meeting you will receive travel reimbursements forms and instructions from Suzie Barger. She will process your reimbursement claims as quickly as possible after receiving the completed forms and necessary receipts.

You will also find enclosed progress reports from the first and second quarters which have been sent to TEA in Austin.

Please contact Suzie at the University of North Texas at (817) 565-3397 if you have any questions.

The project staff looks forward to seeing you in February.

Sincerely,

Marty Barbieri
Research Associate

MB:sb
Enclosures

University of North Texas

College of Education
Occupational and Vocational Education

MEMORANDUM

TO: Advisory Committee - "Alternatives To Social Promotion For Grades 7 & 8"

FROM: Suzie Barger, Vocational Education

DATE: February 19, 1990

RE: Advisory Committee Meeting

This is a brief reminder that the advisory committee for the TEA "Alternatives To Social Promotion For Grades 7 & 8" project will meet on February 25 at the Marriott at the Capitol in Austin. The meeting is scheduled from 6:00 - 7:30 PM. The location of the meeting will be posted at the Vocational Special Needs Conference registration table.

Please be sure to bring your copy of the lesson plans along with your comments and suggestions. The staff is looking forward to receiving your input on both the curriculum and the progress of this project.

If you will be unable to attend the meeting, please give me a call at (817 565-3397 between 8:30 AM and 3:00 PM.

SB

P.O. Box 13857 • Denton, Texas 76203-3857
AC 817/565-2093

MEMO

TO: Advisory Committee - TEA "Alternatives to Social Promotion At Grades 7 & 8"

FROM: Suzie Barger, SB Vocational Education

DATE: January 29, 1990

Enclosed are the draft copies of the lesson plans that have been developed by the writing teams of this project. Please look through the materials before the advisory committee meeting in Austin on February 25th. You may make any comments you have directly on the lesson plans and bring them with you to the meeting. Ample time will be allowed at the meeting to discuss your comments and suggestions.

Again, thank you for contributing your time and effort to this endeavor. The project staff looks forward to receiving your input on the 25th.

SB

University of North Texas

College of Education
Occupational and Vocational Education

MEMORANDUM

DATE: July 25, 1990

TO: Advisory Committee Members - TEA "Alternatives to Social Promotion for Grades 7 & 8"

FROM: Jerry Wircenski and Michelle Sarkees

Enclosed is a copy of the curriculum developed as part of the above Texas Education Agency funded grant. The lesson plans included in the curriculum were written to serve as models for academic and vocational teachers and/or administrators involved in providing coordinated lessons.

Your willingness to contribute both your time and knowledge to this project has been a major factor in the successful development of a product that we hope will enhance the coordination efforts between academic and vocational teaching. The project staff would like to thank you for being a part of this effort to improve education in the state of Texas.

SB
Enclosure

University of North Texas Centennial 1890-1990

P.O. Box 13857 • Denton, Texas 76203-3857 • AC 817/565-2093

Dear

I wanted to give you an update on the project activities. The writing workshops have been held, the initial drafts of the cooperative lesson plans have been submitted by the writing teams and the background planning for the implementation of supporting acitivities has begun. The project office staff is entering the lesson plans into word processing programs so that editing can be done efficiently.

You will be revieving copies of the lesson plan drafts within the next few weeks. Please read through these plans carefully and mark any changes you feel are appropriate. We will review the lesson plans and your suggested revisions at our next advisory committee meeting to be held during the Vocational Special Needs Conference in Austin on February 25-27.

Enclosed you will find a registration form for the conference. Please complete the form and mail a soon as you can. You will be responsibile for making your own hotel, registration, and travel arrangements. If you are planning to fly to Austin, please make those reservations as soon as your travel times can be decided. The difference in fares for early booking can be substantial and we would like to use project funds as prudently as is possible. At the advisory committee meeting you will receive reimbursemment forms and instructions from Suzie Barger. She will process your reimbursement claims as quickly as possible after she receives the completed forms and necessary receipts.

You will also find enclosed progress reports from the first and second quarters which have been sent to TEA in Austin.

Please contact Suzie at the University of North Texas at 817-565-3397 if you have any questions.

The project staff looks forward to seeing you in February.

APPENDIX B
FIELD TEST EVALUATION
AND CORRESPONDENCE

University of North Texas

College of Education
Occupational and Vocational Education

July 21, 1989

Jerry Knight
Vocational Education Director
Mansfield ISD
605 East Broad
Mansfield, TX 76063

Dear Jerry:

I was notified this week by the Texas Education Agency that the University of North Texas has been awarded the grant titled "Alternatives to Social Promotion At Grades 7 and 8." Since you had tentatively agreed to serve in the field test for this curriculum development project, I wanted to let you know the status as soon as possible.

The primary purpose of this work will be coordinating existing vocational and academic curriculum. Marty Barbieri, a project staff member, will be contacting you soon concerning your selection for the 7/8th grade vocational instructor who will participate.

Attached you will find the "Curriculum Development" section of our proposal to TEA. This will give you and your teacher an idea of the plans for the direction of this project.

We appreciate your willingness to participate in this project. We look forward to working with you and your district.

If you have any questions or comments, please contact me at (817) 565-2714.

Sincerely,

Jerry L. Wircenski
Professor
Trade and Wircenski Education

JLW:sb

P.O. Box 13857 • Denton, Texas 76203-3857
AC 817/565-2093

University of North Texas

College of Education
Occupational and Vocational Education

July 21, 1989

Dr. Phillip Gilbreath
Garland ISD
720 Stadium Drive
Garland, TX 75040

Dear Phil:

I was notified this week by the Texas Education Agency that the University of North Texas has been awarded the grant titled "Alternatives to Social Promotion At Grades 7 and 8." Since you had tentatively agreed to serve in the field test for this curriculum development project, I wanted to let you know the status as soon as possible.

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We appreciate your willingness to participate in this project. We look forward to working with you and your district.

If you have any questions or comments, please contact me at (817) 565-2714.

Sincerely,

Jerry L. Wircenski
Professor
Trade and Wircenski Education

JLW:sb

P.O. Box 13857 • Denton, Texas 76203-3857
AC 817/565-2093

University of North Texas
College of Education
Occupational and Vocational Education

July 21, 1989

John Clanton
Vocational Education Director
Hurst-Euless-Bedford ISD
1849 Central Drive
Bedford, TX 76022

Dear John:

I was notified this week by the Texas Education Agency that the University of North Texas has been awarded the grant titled "Alternatives to Social Promotion At Grades 7 and 8." Since you had tentatively agreed to serve in the field test for this curriculum development project, I wanted to let you know the status as soon as possible.

The primary purpose of this work will be coordinating existing vocational and academic curriculum. Marty Barbieri, a project staff member, will be contacting you soon concerning your selection for the 7/8th grade vocational instructor who will participate.

Attached you will find the "Curriculum Development" section of our proposal to TEA. This will give you and your teacher an idea of the plans for the direction of this project.

We appreciate your willingness to participate in this project. We look forward to working with you and your district.

If you have any questions or comments, please contact me at (817) 565-2714.

Sincerely,

Jerry L. Wircenski
Professor
Trade and Wircenski Education

JLW:sb

P.O. Box 13857 • Denton, Texas 76203-3857
AC 817/565-2093

University of North Texas

College of Education
Occupational and Vocational Education

July 21, 1989

Brad Killingsworth
Vocational Education Director
Lewisville ISD
Box 217
Lewisville, TX 75067

Dear Brad:

I was notified this week by the Texas Education Agency that the University of North Texas has been awarded the grant titled "Alternatives to Social Promotion At Grades 7 and 8." Since you had tentatively agreed to serve in the field test for this curriculum development project, I wanted to let you know the status as soon as possible.

The primary purpose of this work will be coordinating existing vocational and academic curriculum. Marty Barbieri, a project staff member, will be contacting you soon concerning your selection for the 7/8th grade vocational instructor who will participate.

Attached you will find the "Curriculum Development" section of our proposal to TEA. This will give you and your teacher an idea of the plans for the direction of this project.

We appreciate your willingness to participate in this project. We look forward to working with you and your district.

If you have any questions or comments, please contact me at (817) 565-2714.

Sincerely,

Jerry L. Wircenski
Professor
Trade and Wircenski Education

JLW:sb

P.O. Box 13857 • Denton, Texas 76203-3857
AC 817/565-2093

MEMO

TO:

FROM: Suzie Barger, Vocational Education

DATE: March 29, 1990

The five curriculum units were mailed out on March 28th to the following teachers for field testing:

Linda Knight/Trina Gibbs **Business Office Serv/Am. History**
Worley Middle School
500 Pleasant Ridge
Mansfield, TX 76063

Joel Graves/Patricia Bingham **Small Engine Repair/English**
Bedford Junior High
325 Carolyn Drive
Bedford, TX 76021

Linda Ward/Joan Burnet **Earth Science/Home Econ.**
Webb Middle School
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Garland, TX 75042

Jim Sickler/Theresa Chainey **Computer Techn./Math**
Morningside Middle School
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Fort Worth, TX 76104

Dianne O'Donnell/Teri Mork **Life Managment/Reading**
Milliken Middle School
2103 Savage Lane
Lewisville, TX 75057

The corrections on Mike Gentry's "Hot Dog Game" and an "Answer Key" were not available to include, so will be sent on as soon as received.

SB

University of North Texas

College of Education
Occupational and Vocational Education

MEMORANDUM

DATE: March 28, 1990

TO: Transition Skills Field Test Teachers

FROM: Suzie Bargen SB

Enclosed is a complete set of the curriculum unit you will be field-testing for the TEA project "Alternative to Social Promotion for Grades 7 & 8." You have received both the academic units and the vocational units so that you can familiarize yourself with the units that your partner will be field-testing.

An evaluation form and invoice will be sent to you at a later date. Please plan to complete the field-testing and evaluation and return all materials by May 15th.

If at any time you have questions, please feel free to contact either Marty Barbieri or myself. I can be reached between 8:00 AM and 3:00 PM at (817) 565-3397 or Metro (817) 267-3731, X-3397.

SB

Dear Trina,

Enclosed you will find evaluation forms for the field test lesson plans. Please complete one evaluation for each lesson you taught. If you have further comments that have not been solicited on the form, please don't hesitate to add them (in margins, on back, or another sheet of paper--inotherwords anywhere, just so we can find them !) If you have questions, call me at 214-296-3423 or Suzie at 817-565-3397. We will try to process your checks as quickly as we can upon the receipt of these evaluations.

Thanks,

VOCATIONAL/ACADEMIC COORDINATED LESSON PLANS
FIELD TEST EVALUATION FORMS

PLEASE COMPLETE ONE FORM FOR EACH LESSON PLAN TAUGHT

TEACHER'S NAME______________________
TITLE OF LESSON PLAN______________________________

1. DID THE LESSON PLAN FORMAT PROMOTE EASE OF USE FOR THE TEACHER PRESENTING THE LESSON ? YES NO
(If no, please attach a sheet with suggestions for revision)

2.APPROXIMATE TIME REQUIRED TO TEACH THIS LESSON ? _____________

3. WERE THE MATERIALS LISTED ADEQUATE FOR THIS LESSON ? YES NO
If no, please list materials that should be added to this plan:
____
____
____
____

4. PLEASE RATE STUDENT REACTION TO THIS LESSON:
____ENTHUSIASTIC
____SHOWED SOME INTEREST
____LESSON DIDN'T INTEREST STUDENTS

5. HOW DID THIS LESSON HELP THE STUDENTS SEE A CONNECTION BETWEEN VOCATIONAL COMPETENCIES AND ACADEMIC COMPETENCIES ?
____
____
____
____
____

6. IN WHAT WAYS DID PLANNING/TEACHING THIS LESSON PROMOTE INTERACTION BETWEEN YOU AND YOUR VOCATIONAL/ACADEMIC COUNTERPART ? ____
____
____
____
____

7. DO YOU HAVE SUGGESTIONS THAT WOULD INCREASE VOCATIONAL/ACADEMIC PERSONNEL INTERACTION FOR THIS LESSON ?

8. PLEASE GIVE SPECIFIC SUGGESTIONS FOR REVISION OF THIS LESSON PLAN. IF POSSIBLE, PLEASE ATTACH THE PAGE FROM THIS LESSON PLAN WITH SOME NOTATION INDICATING EXACTLY WHERE AND WHAT KIND OF CHANGES YOU ARE PROPOSING.

TX920256

ALTERNATIVES TO SOCIAL PROMOTION PROGRAM AT GRADES 7 AND 8

MARTY BARBIERI
PROJECT FACILITATOR

JERRY L. WIRCENSKI
AND
MICHELLE D.SARKEES
PROJECT CO-DIRECTORS

UNIVERSITY OF NORTH TEXAS

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ACKNOWLEDGEMENTS

This project was funded through the Texas Education Agency and was overseen by Eleanor Mikulin. The active participation and professional commitment of personnel from several school districts has been instrumental in bringing this project to a successful conclusion. The participating districts and personnel were: Fort Worth Independent School District Vocational Director, Bettie Herring and Director of Trade and Industrial Programs, David Greer; Morningside Middle School Principal, Odessa Ravin, math teacher, Theresa Chainey, and computer technology, Jim Sickler; Garland Independent School District Vocational Director, Phil Gilbreath; Webb Middle School Principal, Jim Lewis, homemaking teacher, Linda Ward, and science teacher, Joan Brunet; Hurst-Euless-Bedford Independent School District Vocational Director, John Clanton; Bedford Junior High Principal, Erwin Matthews, English teacher Trish Bingham, and general mechanical repair teacher, Joel Graves; Lewisville Independent School District Vocational Director, Brad Killingsworth; Millikin Middle School Principal, Barbara Stagner, home economics teacher, Diane O'Donnell, and reading teacher, Teri Monk; Mansfield Independent School District Vocational Director, Jerry Knight; Worley Middle School Principal, Jerry Gray, office business services teacher, Linda Knight and social studies teacher, Trina Gibbs.

The guidance and direction of the project's Advisory Committee has been inspiring and fruitful. We would like to express our gratitude to Eleanor Mikulin, Sheila Grant-Gold, Jim Lieber, Carol Marshall, Sandy McCain, Bobby Singleton, Odessa Ravin, Mary Hendrix, and Bob Evans for their dedicated input.

Many thanks to the publishers of materials used in two of the lesson plans. Mr. Bill Ryan of Clearvue, Inc. has been very cooperative in facilitating the use of "1787: A Simulation." We would also like to express our gratitude to BMA Publishers for permitting us to use their text book entitled, "Essentially Yours" by M.D. Ammerman.

The writing coordinators who held integral positions in moving the concept of coordination to actual lesson plans were Susan Bonesteel, Dr. Donna Cunningham, Mike Gentry, Dixie Porcher, and Chris Wolverton. The project staff included Guidance and Counseling Specialist, Dr. Pat McLeod; Program Specialist, Suzie Barger; Research Associate, Marty Barbieri; and Research Associate, Jabar Omar.

IMPLEMENTATION GUIDE

Purpose of These Plans

These lesson plans were written to serve as models for academic and vocational teachers who would like to write and teach coordinated lessons. The plans were written and field tested by 7th and 8th grade teachers. Each teacher wrote lessons for his/her own class that would be coordinated with the team teacher's class. The subject matter pairings for these sample lesson plans are: (1) English and General Mechanical Repair; (2) Reading and Home Economics - Life Skills; (3) Science and Home Economics - Life Skills; (4) Math and Computer Technology; and (5) Social Studies and Business Office Systems.

You will find some consistency in the lesson plan formats, but each pair of teachers approached the task of writing the plans in ways that best fit their particular teaching situation. Some teacher-pairs chose to use existing materials and plan methods to use them toward a common goal. Other pairs chose to create teacher-made materials and/or activities in presenting common instructional elements. In reading through these sample lesson plans, it is hoped that you will focus not on the content of each lesson, but on the various methods of coordination available to you.

How These Model Plans Were Developed

One vocational and one academic teacher was selected on each of the five 7th and 8th grade campuses participating in this project. These 10 teachers were brought together during the initial phase of the project to receive an explanation of the objectives of this project and to set dates for future full group and small group meetings. Each teacher-pair was assigned a third person to act as a writing coordinator. Each of these coordinators had some knowledge of the subject matter covered by his/her team, but had no personal investment in either teacher's instructional situation. As such, these neutral coordinators could keep writing team meetings on track, away from "turfdom" or campus politics. They served as sounding boards during the brainstorming process while teachers were trying to decide how and what materials they would focus on for the coordinated lessons.

At the first meeting, each triad (teacher-pair and their respective writing coordinator) compared essential elements, course syllabus, text books, scope and sequence charts, and course calendars. Common instructional elements were identified and from these common elements, the teachers selected the topic they would use for coordinated plans.

During the writing phase, the teachers would meet primarily in triads, but would come together at pre-set intervals in whole group discussions for progress reports and feedback. At these full-group meetings, the teachers would hear presentations on issues related to effective lesson planning. These presentations included learning styles accommodations, curriculum-based vocational assessment, and meeting the needs of special learners in the mainstream classroom.

Upon completion of the coordinated plans, the teachers field-tested the lessons, submitted evaluation forms outlining lesson strengths, and made suggestions for revision. The lessons included are the field-tested, revised plans.

Suggestions for Teachers Deciding to Write Coordinated Plans

1. Select a writing partner, not a subject. The teachers participating in the project did not have problems identifying common elements of instruction, even though, on the surface, their subjects seemed to be quite different. Common elements can be found in almost all, if not all, vocational and academic subjects. Each participating teacher must be willing to set aside time for organization of materials, meeting with his/her team teacher to select topics for coordinated plans, and for developing lesson plans. Of course, different lesson plan development strategies can be used. For instance, the teachers could meet with a writing coordinator who would take rough drafts submitted by the teachers and develop the lesson plans for them. This would significantly cut down on the time required of the teachers, but both teachers must be committed to fulfilling their part of the development plan.

2. The use of triads is very helpful. The third person who brings objectivity to the teacher-pairings can keep the energy flowing in a positive, creative direction and can cut development time significantly.

3. If you decide to try a vocational/academic cooperative lesson planning project, divide the project into small units and workable time frames. For example, for your first objective, commit to writing only five cooperative lesson plans. Spend time in identifying common elements, selecting a few topics, and developing those topics into actual lesson plans. Set aside time to field test the plans and then come back together for evaluation. Revise those first plans and make decisions on changes in format or procedure for the next set of plans. As you gain more experience in cooperative planning, larger numbers of plans can be developed for each planning session. These small steps allowing for learning time on the part of the teacher-planners will keep frustration at a minimum and allow teachers, students, and administration to see the fruit of the effort and time spent on coordination.

4. Because time is at a premium for school personnel, it would be helpful to work out a plan with administrators for some time allowances spent in cooperative planning. These time discussions might include comp-time for planning/writing meetings held on Saturdays or after school hours. This comp-time might be exchanged for local in-service hours or teacher work days. While coming to workable solutions for the time required is difficult, open, calm discussions with brainstorming sessions to bring in new ideas should be held. Each campus has unique ways to handle schedule fluctuations, so no one "right" solution can be offered here. The time dilemma is another reason small steps in development should be taken. It is much easier to begin a project with small time allowances, then continue time concessions as the project develops into a proven successful instructional strategy.

5. As time progresses, involve other teachers in the cooperative planning. Write ancillary plans for them originally, then slowly bring them into the planning/writing process.

6. Involve community speakers/resources as much as possible. Effective cooperative efforts can bring new resources to both the academic and vocational teacher. Taxpayers will look upon these cooperative efforts very kindly as they will be recognized as efficient uses of educational resources.

7. Share the results of your efforts with teachers on other campuses and in other districts. You may even find another pairing of teachers in your field that is willing to co-develop plans. This will save time and energy for everyone and will keep fresh ideas coming to both parties.

COMPUTER TECHNOLOGY / MATH

Academic Unit: Math (Academic class)

Lesson Topic: Budgeting, expense planning

Objective: The student will be able to explain principles of expense planning in which random events influence the outcome.

Resources/ Arrangements: The "Hot Dog Game" included in this lesson plan.

Method: Competitive simulation, discussion, discovery

Introduction: (2 minutes) "The Coin Toss" introduction: Tell the students that you need to flip a coin in order to make some decisions and that you need someone to call out "heads" or "tails." The teacher should quickly get some volunteers to help. Then explain to them that if they predict the coin toss correctly, you will cut their homework in half; and if their prediction is wrong, you will double the homework assignment.

At this point, you should get some objections from some of the class members. (The teacher need not follow through on the coin toss.) Take advantage of these objections to explain that it is a lot easier to make decisions of chance (heads or tails) when there is little or nothing to lose; but if the stakes are too high, the decisions become difficult and usually cause some nervousness. Explain that these decisions are not easy to make, but there are some things that a person can do to help make these decisions easier. Then the teacher might draw the attention of the class to the objective for the day.

Learning Activity: (40 minutes) Students **OPERATE** a hot dog stand at 8 football games. Before each game, students elect to purchase hot dogs, buns, and condiments at the rate of $.50 per hot dog. On the day of the game, students must set the sales price of hot dogs.

Students begin this simulation with $800.00. The suggested objective is to have $12,800.00 by the end of the football season.
Divide the students into cooperative groups of three.

Several variables have been used to make this a realistic simulation. Students need to consider all of the following when making their decisions.

1. The stands can hold no more than 2500 fans.

2. Hot dogs not sold each week are lost.

3. The size of the crowd has a direct effect on sales. Crowd size is affected by:
   a. weather
   b. type of game -- pre-season (smaller crowd) to homecoming (larger crowd)

4. Pricing has a direct effect on sales. Overpriced items sell poorly, while bargains sell very well.

5. Students should assume that all variables interact in a realistic fashion. For example, more people are willing to pay a slightly higher price for a hot dog when the weather is good. (During the colder, rainy weather, fans are tempted to purchase hot chocolate from a competing stand instead of hot dogs.)

Follow the following steps to play the game:

Step one: Pass out the Hot Dog Stand worksheet and explain the guidelines of the game. Students will select how many hot dogs and buns to buy, calculate their expenses and enter the result on the worksheet. Teachers should check the students' work and perhaps initial the worksheet entry to discourage changing the amount later.

Step two: Determine the crowd size by the weather. The eight weather cards should have been shuffled previously to provide random weather conditions. The teacher draws a weather card from the stack and reads it aloud. Students enter the crowd size on the worksheet.

Step three: Determine the additions or subtractions to the crowd size by drawing a "Type of Game" card. (All eight cards except the two pregames should be shuffled. The pregame rounds should be played first.) Calculate the adjustment in crowd size and enter the result on the worksheet.

Step four: Determine how many hot dogs will be sold by the price chart. (One hot dog sold to each of the crowd willing to buy one.) Select the chart that corresponds to the weather conditions for that day. Crowd size X % willing to buy = # of hot dogs sold. Enter the amount on the worksheet.

Step five: Calculate sales...# of hot dogs sold X Price. Enter the results on the worksheet.

Step six: Calculate profit...Sales - Expenses. Enter the results on the worksheet.

Delivery of Content: (7 minutes)

After the game is over and a winning team is determined, lead the students in discovery of certain expense planning principles that the simulation should demonstrate. Use questions similar to the following to guide students to certain points.

1. How did you feel when you were trying to make planning decisions during the first round of play?

2. Would it have helped if you had someone on your team that had already played the game before?

3. Are you glad you were in a group rather than just making decisions on your own?

4. Were there disagreements within the groups as to the decisions? How did you settle the disagreements?

5. How many of you had "hunches" that you felt would turn out good, but they didn't? ....but they did?

6. Did it get easier to make decisions after you played a few rounds? What made it seem easier? (able to adjust from past mistakes; estimate of what to expect; etc.)

7. Were you influenced to buy too much merchandise by the (rather ambitious) goal of $2500.00 given by the computer?

8. Even though you were in competition with each other, did you try to overhear your competition's plans and their estimates? If so, did it influence your decisions?

9. If this had been a real life project, what kind of people might you be able to talk with to secure reliable estimates? (other hot dog stands, hot dog suppliers)

10. Was any team able to buy exactly the right amount of supplies and sell them at exactly the right price and the right time so there was nothing left over and no additional possible sales that could have been made? (Finding the "break-even" point is an age-old challenge of businessmen and is rarely experienced.)

Evaluation: Evaluate the students responses to the questions during the delivery of content for level of learning and accuracy. Although luck plays a part in this simulation, the amount of money earned by each hot dog stand is an indicator of the students' understanding of the principles of estimating expenses.

Summary: Use the transparency **Major Principles of Estimating Expenses** to review and reinforce the main principles discovered in class discussion and the hot dog simulation.

HOT DOG STAND WORKSHEET

Game #___ Type Game:__________ Weather Forecast:______________

Bank Balance:______ Hot Dog Price $________________

Expenses:______________________
($.50 per hot dog)

Adjusted Bank Balance:__________
(Bank Balance - Expenses)

Predicted # of sales:________

Adjusted Crowd Size:____________

# of Sales:__________________

SALES AMT:$__________________

PROFIT:$______________________
(Sales - Expenses)

New Bank Balance $____________
(Adj. Bank Balance + Sales Amt.
or Orig. Bank Balance + Profit)
(Carry over to "Bank Balance"
of next game.)

HOT DOG STAND WORKSHEET

Game #___ Type Game:__________ Weather Forecast:______________

Bank Balance:______ Hot Dog Price $________________

Expenses:______________________
($.50 per hot dog)

Adjusted Bank Balance:__________
(Bank Balance - Expenses)

Predicted # of sales:________

Adjusted Crowd Size:____________

# of Sales:__________________

SALES AMT:$__________________

PROFIT:$______________________
(Sales - Expenses)

New Bank Balance $____________
(Adj. Bank Balance + Sales Amt.
or Orig. Bank Balance + Profit)
(Carry over to "Bank Balance"
of next game.)

MAJOR PRINCIPLES OF ESTIMATING EXPENSES:

1. ESTIMATING EXPENSES THAT ARE SUBJECT TO RANDOM INFLUENCE OR UNPREDICTABLE CIRCUMSTANCES IS DIFFICULT, SOMEWHAT STRESSFUL, AND RARELY ACCOMPLISHED WITH ABSOLUTE ACCURACY.

2. ESTIMATING EXPENSES FOR WHICH THERE IS LITTLE OR NO INFORMATION UPON WHICH TO BASE AN ESTIMATE IS DIFFICULT, SOMEWHAT STRESSFUL, AND RARELY ACCOMPLISHED WITH ABSOLUTE ACCURACY.

3. BETTER ESTIMATES CAN BE MADE WITH ADVICE FROM EXPERIENCED PEOPLE FAMILIAR WITH YOUR CIRCUMSTANCES.

4. BASE YOUR ESTIMATES ON THE RESULTS OF PAST PERFORMANCE RATHER THAN UNREALISTIC GOALS.

5. ALTHOUGH "HUNCHES" SOMETIMES PAY OFF, THEY ARE GENERALLY REGARDED AS UNRELIABLE.

6. A GROUP DECISION CAREFULLY EVALUATING THE DIFFERENT INFLUENCES OF A SITUATION INCREASES THE CHANCES OF A BETTER DECISION.

7. WHEN ESTIMATING EXPENSES, YOU SHOULD ALLOW FOR A MARGIN OF ERROR.

SUNNY WEATHER PRICE CHART:

When the price is between:	The result will be:
$0.00 - $1.15	All will buy one.
$1.16 - $1.40	80% of the crowd will buy one.
$1.41 - $1.65	60% of the crowd will buy one.
$1.66 - $1.90	30% of the crowd will buy one.
$1.91 - above	No sales; price is too high.

PARTLY CLOUDY PRICE/SALES CHART:

When the price is between:	The result will be:
$0.00 - $1.00	All will buy one.
$1.01 - $1.25	80% of the crowd will buy one
$1.26 - $1.50	60% of the crowd will buy one.
$1.51 - $1.75	30% of the crowd will buy one.
$1.76 - above	No sales; price is too high.

LIGHT RAIN PRICE/SALES CHART:

When the price is between:	The result will be:
$0.00 - $0.85	All will buy one.
$0.86 - $1.10	80% of the crowd will buy one.
$1.11 - $1.35	60% of the crowd will buy one.
$1.36 - $1.60	30% of the crowd will buy one.
$1.61 - above	No sales; price is too high.

MODERATE TO HEAVY RAIN PRICE/SALES CHART:

When the price is between:	The result will be:
$0.00 - $0.75	All will buy one.
$0.76 - $1.00	80% of the crowd will buy one.
$1.01 - $1.25	60% of the crowd will buy one.
$1.26 - $1.50	30% of the crowd will buy one.
$1.51 - above	No sales; price is too high.

WEATHER CONDITIONS FOR THE GAME:

Sunny skies and warm temperatures today, a great day for a football game. (2000 will attend the game on a day like today.)	Sunny skies and warm temperatures today, a great day for a football game. (2000 will attend the game on a day like today.)
Sunny skies and warm temperatures today, a great day for a football game. (2000 will attend the game on a day like today.)	Partly cloudy skies today with slightly cooler temperatures. No mention of rain in the forecast. (1500 will attend the game on a day like today.)
Partly cloudy skies today with slightly cooler temperatures. No mention of rain in the forecast. (2000 will attend the game on a day like today.)	Cloudy and cooler today with light rain today, tonight and tomorrow. (1000 will attend the game on a day like today.)
Cloudy and cooler today with light rain today, tonight and tomorrow. (1000 will attend the game on a day like today.)	Moderate to heavy showers today, some possibly severe. (750 will attend the game on a day like today.)

"TYPE OF GAME" CARDS:

Preseason game - attendance is down a little. Subtract 25% from the crowd size.	Preseason game - attendance is down a little. Subtract 25% from the crowd size.
This is a regular season game. You may expect 100% attendance from the fans that attend in this kind of weather.	This is a regular season game. You may expect 100% attendance from the fans that attend in this kind of weather.
This is a regular season game. You may expect 100% attendance from the fans that attend in this kind of weather.	This is a regular season game. You may expect 100% attendance from the fans that attend in this in this kind of weather.
This is a regular season game. You may expect 100% attendance from the fans that attend in this kind of weather.	This is HOMECOMING!! Increase crowd size by 25%. (Normal crowd size determinded by the weather.)

COMPUTER TECHNOLOGY / MATH

Academic Unit: Math (Computer technology)

Lesson Topic: Budgeting, expense planning

Objective: The student will be able to explain principles of expense planning in which random events influence the outcome.

Resources/ Arrangements: Public domain software for IBM, Apple, or Tandy can be found at your Educational Service Center. (Hot Dog Game)

Method: Competitive simulation, discussion, discovery

Introduction: (2 minutes) "The Coin Toss" introduction: Tell the students that you need to flip a coin in order to make some decisions and that you need someone to call out "heads" or "tails." The teacher should quickly get some volunteers to help. Explain to them that if they predict the coin toss correctly, you will cut their homework in half; and if their prediction is wrong, you will double the homework assignment.

At this point, you should get some objections from some of the class members. (The teacher need not follow through on the coin toss.) Take advantage of these objections to explain that it is a lot easier to make decisions of chance (heads or tails) when there is little or nothing to lose; but if the stakes are too high, the decisions become difficult and usually cause some nervousness. Explain that these decisions are not easy to make, but there are some things that a person can do to help make these decisions easier. Then the teacher might draw the attention of the class to the objective for the day.

Learning Activity: (40 minutes) Students **OPERATE** a hot dog stand at 8 football games. Before each game, students can elect to purchase hot dogs, buns, soda, chips, and courtesy kits (napkins, mustard, relish, etc....). Three different qualities or unit prices are always available.

On the day of the game, students must set the sales price of hot dogs (including hot dog, bun, and courtesy kits), soda, and chips.

Students begin this simulation with $200.00. The suggested objective is to have $2500.00 by the end of the football season.

Divide the students into cooperative groups of three. Begin program (program should already be booted up at this time).

Several variables have been used to make this a realistic simulation. Students need to consider all of the following when making their decisions.

1. The stands can hold no more than 1000 fans.

2. Hot dogs cannot be sold without buns, or vice versa.

3. Customers expect courtesy kits when they purchase hot dogs. If courtesy kits are not available, the sale of the hot dogs will be greatly reduced.

4. Hot dogs and buns not sold each week are lost.

5. The size of the crowd has a direct effect on sales. Crowd size is affected by:
   a. weather
   b. type of game -- pre-season (smaller crowd) to homecoming (larger crowd)
   c. time of day -- evening games have larger crowds
   d. day of the week -- Saturday crowds are larger than Friday crowds

6. Pricing has a direct effect on sales. Overpriced items sell poorly, while bargains sell very well.

7. Students should assume that all variables interact in a realistic fashion. For example, given the same size crowd, more soda can be sold on a sunny day than on a rainy day.

This simulation will produce different football schedules, different unit pricing, and hence very different results each time it is used. Success on one run does not assure the same result on subsequent runs.

This simulation can be very effective when used by a group of students. In general, a small group will discuss more of the variables that can affect each decision, and consideration of those variables is an important aspect of the simulation.

The suggested goal of $2500.00 is ambitious. Students should be encouraged to measure their present performance against their past performance and those of other groups, rather than against an arbitrary goal.

Encourage students to analyze the results of each day's sales. Why did one or more items sell especially well or especially poorly?

The Hot Dog stand worksheet will be used to record results, so students can analyze past decisions.

Delivery of Content: (7 minutes)

After the game is over and a winning team is determined, lead the students in discovery of certain expense planning principles that the simulation should demonstrate. Use questions similar to the following to guide students to certain points.

1. How did you feel when you were trying to make planning decisions during the first round of play?
2. Would it have helped if you had someone on your team that had already played the game before?
3. Are you glad you were in a group rather than just making decisions on your own?
4. Were there disagreements within the groups as to the decisions? How did you settle the disagreements?

5. How many of you had "hunches" that you felt would turn out good, but they didn't? ....but they did?

6. Did it get easier to make decisions after you played a few rounds? What made it seem easier? (able to adjust from past mistakes; estimate of what to expect; etc.)

7. Were you influenced to buy too much merchandise by the (rather ambitious) goal of $2500.00 given by the computer?

8. Even though you were in competition with each other, did you try to overhear your competition's plans and their estimates? If so, did it influence your decisions?

9. If this had been a real life project, what kind of people might you be able to talk with to secure reliable estimates? (other hot dog stands, hot dog suppliers)

10. Was any team able to buy exactly the right amount of supplies and sell them at exactly the right price and the right time so there was nothing left over and no additional possible sales that could have been made? (Finding the "break-even" point is an age-old challenge of businessmen and is rarely experienced.)

Evaluation: Evaluate the students responses to the questions during the delivery of content for level of learning and accuracy. Although luck plays a part in this simulation, the amount of money earned by each hot dog stand is an indicator of the students' understanding of the principles of estimating expenses.

Summary: Use the transparency **Major Principles of Estimating Expenses** to review and reinforce the main principles discovered in class discussion and the hot dog simulation.

COMPUTER TECHNOLOGY / MATH

Transparency includes the following:

1. Estimating expenses that are subject to random influence or unpredictable circumstances is difficult, somewhat stressful, and rarely accomplished with absolute accuracy.

2. Estimating expenses for which there is little or no information upon which to base an estimate is difficult, somewhat stressful, and rarely accomplished with absolute accuracy.

3. Better estimates can be made with the help of advice from experienced people familiar with your circumstances.

4. Base your estimates on the results of past performance, rather than unrealistic goals.

5. Although "hunches" sometimes pay off, they are generally regarded as unreliable.

6. A group decision carefully evaluating the different influences of a situation increase the chances of a better decision.

7. When estimating expenses, you should allow for a margin of error.

HOT DOG STAND WORKSHEET

Game ____ Day ________________ Weather Forecast ____________________

Bank Balance _____

	On Hand	Purchased	Total Cost	Cost Per Item	Price Charged	Sold	Total Income
HOT DOGS							
BUNS							
SODA							
CHIPS							
COURTESY KITS							

TOTAL EXPENDITURES ________________

HOT DOG STAND WORKSHEET

Game ____ Day ________________ Weather Forecast ____________________

Bank Balance _____

	On Hand	Purchased	Total Cost	Cost Per Item	Price Charged	Sold	Total Income
HOT DOGS							
BUNS							
SODA							
CHIPS							
COURTESY KITS							

TOTAL EXPENDITURES ________________

MAJOR PRINCIPLES OF ESTIMATING EXPENSES:

1. ESTIMATING EXPENSES THAT ARE SUBJECT TO RANDOM INFLUENCE OR UNPREDICTABLE CIRCUMSTANCES IS DIFFICULT, SOMEWHAT STRESSFUL, AND RARELY ACCOMPLISHED WITH ABSOLUTE ACCURACY.

2. ESTIMATING EXPENSES FOR WHICH THERE IS LITTLE OR NO INFORMATION UPON WHICH TO BASE AN ESTIMATE IS DIFFICULT, SOMEWHAT STRESSFUL, AND RARELY ACCOMPLISHED WITH ABSOLUTE ACCURACY.

3. BETTER ESTIMATES CAN BE MADE WITH ADVICE FROM EXPERIENCED PEOPLE FAMILIAR WITH YOUR CIRCUMSTANCES.

4. BASE YOUR ESTIMATES ON THE RESULTS OF PAST PERFORMANCE RATHER THAN UNREALISTIC GOALS.

5. ALTHOUGH "HUNCHES" SOMETIMES PAY OFF, THEY ARE GENERALLY REGARDED AS UNRELIABLE.

6. A GROUP DECISION CAREFULLY EVALUATING THE DIFFERENT INFLUENCES OF A SITUATION INCREASES THE CHANCES OF A BETTER DECISION.

7. WHEN ESTIMATING EXPENSES, YOU SHOULD ALLOW FOR A MARGIN OF ERROR.

MATH / COMPUTER TECHNOLOGY

Academic Unit: Math (Academic class)

Lesson Topic: Order of operations

Objective: The student will be able to compute arithmetic problems following the correct order of operations.

Resources/ Special Arrangements: Packet of 16 cards, number/signs cubes, "Operation Scramble" game cards

Introduction: (10 minutes) "Make a problem" activity, using cooperative groups of 3 or 4, give each student a packet of 16 cards marked as follows: (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, +, -, X, ÷). The assignment is to make as many problems as possible without using the same character twice in any one problem. Someone in the group should record the problems on paper. Time limit of 10 minutes.

After the ten minutes, have the students set them aside and go to the delivery of content.

Method: Lecture, discussion, cooperative learning, discovery, competitive classroom game, worksheet

Delivery of Content: (20 minutes)

1. Discuss the following problems from the overhead:

ORDER OF OPERATIONS

$12 - 6 \div 2 =$	$(12 - 6) \div 2 =$
$3 \times 6 + 4 =$	$3(6 + 4) =$
$10 + 4 \div 2 - 8 =$	$[(10 + 4) \div 2] - 8 =$

Discuss:

A. What are the differences and similarities of these problems?
B. What are the answers? Justify them.

2. Introduce the rules for the order of operations and "My Dear Aunt Sally."
   - A. Follow all grouping symbols first.
   - B. Going from left to right, multiply and divide before any adding and subtracting.

3. Return to the six problems on the transparency and demonstrate how to compute the problems using the correct order of operations. (Comment and praise if some were previously answered and explained correctly.)

Learning Activity: (13 minutes)

Have the students return to their cooperative groups to discuss and compute the problems they created during the introduction activity. (*Optional - have the students turn in their group's work.)

Evaluation:

Evaluate the problems computed by each group for accuracy and order of operation. (*Optional - Grade the problems turned in.)

Summary: (12 minutes)

Have each of the cooperative groups compete against the other cooperative groups in "Operation Scramble."

Give each group a packet of assorted problems (each problem on a separate card) and assorted answers (also on separate cards). Make certain the problems and answers are in no particular order.

When the teacher says "go," the students will begin to solve the problems using the correct order of operations. The group will then match each problem to its correct answer. The first group to complete the assignment correctly wins the round.

Have the groups exchange packets with another group that has a different packet and play another round. (The teacher should decide how many rounds will be played so that he/she can prepare enough packets.)

The teacher should circulate during the play to monitor, reinforce, and restate the order of operations.

MATH / COMPUTER TECHNOLOGY

OPTIONAL ACTIVITY

1. Which of the following arithmetic operations would be performed first?
   - a. addition
   - b. multiplication
   - c. subtraction
   - d. rounding off

2. Subtraction is the same as adding a negative number and therefore has the same priority as addition.
   - a. true
   - b. false

3. The lowest priority of arithmetic operations is:
   - a. multiplication
   - b. from left to right
   - c. parentheses
   - d. division

4. Which of the following has the highest priority in arithmetic operations?
   - a. inside parentheses
   - b. outside parentheses
   - c. multiplication
   - d. addition

5. Which of the following has the highest priority in arithmetic operations?
   - a. subtraction
   - b. division
   - c. addition
   - d. from left to right

MATH / COMPUTER TECHNOLOGY

OPTIONAL ACTIVITY KEY

1. Which of the following arithmetic operations would be performed first?
   a. addition
   [✓ b.] multiplication
   c. subtraction
   d. rounding off

2. Subtraction is the same as adding a negative number and therefore has the same priority as addition.
   [✓ a.] true
   b. false

3. The lowest priority of arithmetic operations is:
   a. multiplication
   [✓ b.] from left to right
   c. parentheses
   d. division

4. Which of the following has the highest priority in arithmetic operations?
   [✓ a.] inside parentheses
   b. outside parentheses
   c. multiplication
   d. addition

5. Which of the following has the highest priority in arithmetic operations?
   a. subtraction
   [✓ b.] division
   c. addition
   d. from left to right

OPERATION SIGN CARDS:

0	1	2	3
4	5	6	7
8	9	+	-
X	÷	(	)

ORDER OF OPERATIONS

$12 - 6 \div 2 =$	$(12 - 6) \div 2 =$
$3 \text{ X } 6 + 4 =$	$3(6 + 4) =$
$10 + 4 \div 2 - 8 =$	$[(10 + 4) \div 2] - 8 =$

Operation Scramble

$\frac{15}{3} - 2$	3
$\frac{24}{2(3)}$	4
$(12-6)-1$	5
$2(8) - \frac{(18+2)}{2}$	6
$\frac{35-7}{4}$	7

Operation Scramble

$(4+7)-5$	6
$2(8)-4$	12
$\frac{27}{3}+4$	13
$2(9-2)$	14
$6(18-15)$	18

Operation Scramble

$8 \times 4 - 4 \times 3$	20
$\frac{16}{4} + \left(\frac{21}{7} \times \frac{32}{8}\right) + 1$	17
$5(3+1) + 6$	26
$\left(\frac{48}{6} + \frac{18}{6}\right)2 + 1$	23
$2 \times 18 \div 4 \times 3 + 15$	18

MATH / COMPUTER TECHNOLOGY

Academic Unit: Math (Computer Technology)

Lesson Topic: Order of Operations

Objective: The student will be able to compute arithmetic problems following the correct order of operations.

Resources/ Special Arrangements: Packet of 16 cards (already marked by the teacher), number/signs cubes, "Operation Scramble" game cards

Introduction: (5 minutes) Write on the overhead:
6 + 2 X 4 = ____. Ask one student to find the answer by adding first and then multiplying. (32) Ask another student to find the answer by multiplying first then adding. (14) Point out the difference.

Method: Lecture, discussion, cooperative learning, discovery, competitive classroom game, worksheet.

Delivery of Content: (18 minutes) "Make a Problem" game -

1. Students are divided into groups of three. One student in each group will be asked to write down the problems.

2. Each group is handed a set of 16 3x5" cards. This set includes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, +, -, /, *, (, and).

3. The group is given 10 minutes to create as many problems as possible without using the same character twice in each problem.

4. When the time is up, the students will be shown several examples of operational problems from the transparency "Operational Problems", page 34, and how they are solved.

   Ex.:
   12/(6 - 2)   12/6 - 2

   What is the difference?
   Is there any difference?
   Why?

5. The MDAS rule is now presented to the students, (My Dear Aunt Sally). The teacher continues to explain the operations and reasoning.

Learning Activity: (20 minutes)

1. The students are now given 20 minutes to solve the problems that they created. (Have the students turn in their work at end of class.)
2. After checking their own paper, the teacher will check for mastery.

Evaluation: Evaluate the problems computed by each group for accuracy and order of operation.

Summary: Have each of the cooperative groups compete against the other cooperative groups in "Operation Scramble."

Give each group a packet of assorted problems (each problem on a separate card) and assorted answers (also on separate cards). Make certain the problems and answers are in no particular order.

When the teacher says "go," the students will begin to solve the problems using the correct order of operations. The group will then match each problem to its correct answer. The first group to complete the assignment correctly wins the round.

Have the groups exchange packets with another group that has a different packet and play another round. (The teacher will need as many packets as they desire rounds to play.)

The teacher should circulate during the play to monitor, reinforce, and restate the order of operations.

MATH / COMPUTER TECHNOLOGY

OPTIONAL ACTIVITY

1. Which of the following arithmetic operations would be performed first?
   a. addition
   b. multiplication
   c. subtraction
   d. rounding off

2. Subtraction is the same as adding a negative number and therefore has the same priority as addition.
   a. true
   b. false

3. The lowest priority of arithmetic operations is:
   a. multiplication
   b. from left to right
   c. parentheses
   d. division

4. Which of the following has the highest priority in arithmetic operations?
   a. inside parentheses
   b. outside parentheses
   c. multiplication
   d. addition

5. Which of the following has the highest priority in arithmetic operations?
   a. subtraction
   b. division
   c. addition
   d. from left to right

MATH / COMPUTER TECHNOLOGY

OPTIONAL ACTIVITY KEY

1. Which of the following arithmetic operations would be performed first?
   a. addition
   [✓ b.] multiplication
   c. subtraction
   d. rounding off

2. Subtraction is the same as adding a negative number and therefore has the same priority as addition.
   [✓ a.] true
   b. false

3. The lowest priority of arithmetic operations is:
   a. multiplication
   [✓ b.] from left to right
   c. parentheses
   d. division

4. Which of the following has the highest priority in arithmetic operations?
   [✓ a.] inside parentheses
   b. outside parentheses
   c. multiplication
   d. addition

5. Which of the following has the highest priority in arithmetic operations?
   a. subtraction
   [✓ b.] division
   c. addition
   d. from left to right

OPERATION SIGN CARDS:

0	1	2	3
4	5	6	7
8	9	+	-
X	÷	(	)

OPERATIONAL PROBLEMS

$12 - 6 \div 2 =$	$(12 - 6) \div 2 =$
$3 \times 6 + 4 =$	$3(6 + 4) =$
$10 + 4 \div 2 - 8 =$	$[(10 + 4) \div 2] - 8 =$

Operation Scramble

$\frac{15}{3} - 2$	3
$\frac{24}{2(3)}$	4
$(12-6)-1$	5
$2(8) - \frac{(18+2)}{2}$	6
$\frac{35-7}{4}$	7

Operation Scramble

$(4+7)-5$	6
$2(8)-4$	12
$\frac{27}{3}+4$	13
$2(9-2)$	14
$6(18-15)$	18

Operation Scramble

$8 \times 4 - 4 \times 3$	20
$\frac{16}{4} + \left(\frac{21}{7} \times \frac{32}{8}\right) + 1$	17
$5(3+1) + 6$	26
$\left(\frac{48}{6} + \frac{18}{6}\right)2 + 1$	23
$2 \times 18 \div 4 \times 3 + 15$	18

MATH / COMPUTER TECHNOLOGY

Academic Unit:	Math (Academic class)
Lesson Topic:	Order of operations
Objective:	The student will be able to compute arithmetic problems following the correct order of operations.
Resources/ Special Arrangements:	Worksheet, flashcards, calculators
Introduction: (12 minutes)	Comment on yesterday's group work by showing some of the problems and discussing them again. Be certain to review the principles of "My Dear Aunt Sally" again.
Method:	Lecture, demonstration, cooperative learning
Delivery of Content (20 minutes)	1. Illustrate the order of operations with a calculator. Pass out the worksheet, page 40-42, and work through two or three of the problems together. Have students follow the teacher's lead and compute the problems on their calculators. 2. Allow a volunteer student to walk through the computation process, solving one of the problems. 3. Using the calculators, have the students complete the rest of the worksheet. Teacher should monitor and reinforce.
Learning Activity: (15 minutes)	Play "Roll-a-Problem." Divide the class into diads. Give each diad 7 cubes. The six sides of the cubes are marked as follows: 2 are numbered 0-5 2 are numbered 5-10 3 are operational cubes (+, -, X, ÷, Free Choice, Free Choice) Each diad will roll all seven cubes and determine who can come up with the largest answer. Compare problems and check each other's work. The diad with the largest answer wins the round. Roll the cubes again to start the next round.

Evaluation: Grade the worksheets

Summary:
(8 minutes)

Gunfighter flashcards:
Divide the class into two groups. Select one student from each of the groups to begin the flashcard activity. Have the students face each other in front of the class (like gunfighters). Quickly bring out two flashcards with the problems on one side (facing the student) and the answer on the back. Hold the card so that the students can see the problem and you can see the answer on the back. The first student to correctly compute their problem will hold up his/her finger (like a gun), point it at the other person and shout out the answer. If they are correct, they win the gunfight, the other person dies, and a new challenger comes up from the loser's group to face the "champ." After three rounds of winning, the champ must retire, and another from his/her group takes his/her place. The group with the most retirees wins the "shoot-out."

ORDER OF OPERATIONS WORKSHEET

Complete the following two problems for enrichment:

A. $\frac{\square\,(\square + \square)}{\square} = 4$

B. $\square + \square\,(\square - \square) = 8$

COMPUTE:

1. 16/8 =
2. 2(7) =
3. 2(6) + 4 =
4. 2(8 − 1) + 6 =
5. $\frac{18 - 6}{2} =$
6. 3(7) =
7. 3 x 9 / 3 =
8. 7(10 + 2) =
9. 40/4 − 2 =
10. 8/4 + 12 =
11. (7−1) x 6 =
12. 3(8)/2 =
13. 10(7)/2 =
14. $\frac{40}{2(4)} =$
15. $\frac{6 + 10}{2 + 2} =$

MATH / COMPUTER TECHNOLOGY

ANSWER SHEET

ORDER OF OPERATIONS WORKSHEET

Complete the following two problems for enrichment:

A. $\frac{\square(\square + \square)}{\square} = 4$

Answers Vary

B. $\square + \square \; (\square - \square) = 8$

COMPUTE:

1. 16/8 = 2
2. 2(7) = 14
3. 2(6) + 4 = 16
4. 2(8 − 1) + 6 = 20
5. $\frac{18-6}{2} = 6$
6. 3(7) = 21
7. 3 x 9 / 3 = 9
8. 7(10 + 2) = 84
9. 40/4 − 2 = 8
10. 8/4 + 12 = 14
11. (7−1) x 6 = 36
12. 3(8)/2 = 12
13. 10(7)/2 = 35
14. $\frac{40}{2(4)} = 5$
15. $\frac{6+10}{2+2} = 4$

GUNFIGHTER FLASHCARDS

$$7(9-1)$$

$$6(8+2)$$

$$15-9+3$$

$$21\div 3+11$$

$$(2+3)-(8-5)$$

$$(11-7)+(10+3)$$

$$\frac{16}{4}+8$$

$$13-\frac{15}{3}$$

$$\frac{20-10}{5}+1$$

$$\frac{7+7}{2}-5$$

GUNFIGHTER FLASHCARDS

$$\frac{3+4\times 2}{11}$$

$$\frac{81}{9}-\frac{54}{6}+\frac{36}{6}$$

$$\frac{12\div 4-3}{1}$$

$$3(8-5+1)$$

$$\frac{2(15-9)}{4}$$

$$4(7+2-4)$$

$$\frac{5(6+3)}{5}$$

$$2(7)-9\div 3$$

$$\frac{42}{6}+\frac{64}{8}-\frac{20}{5}$$

$$28\div 7\times 4-9$$

GUNFIGHTER FLASHCARDS

$7+3\times2-12\div4$	$\frac{3\times8\div4}{2}+5+7$

Make up some of your own!
↓

COMPUTER TECHNOLOGY / MATH

Academic Unit: Math (Computer technology)

Lesson Topic: Order of operations

Objective: The student will be able to compute arithmetic problems following the correct order of operations.

Resources/ Special Arrangements: Worksheet, flashcards, computers

Introduction: (12 minutes) Comment on yesterday's group work by showing some of the problems and discussing them again. Be certain to review the principles of "My Dear Aunt Sally" again.

Method: Lecture, demonstration, cooperative learning

Delivery of Content: (20 minutes)

1. Illustrate the order of operations with a computer. Pass out the worksheet and work through two or three of the problems together. Have students follow the teacher's lead and compute the problems on their computer.

2. Allow a volunteer student to walk through the computation process, solving one of the problems.

3. Using the computers, have the students complete the rest of the worksheet. Teacher should monitor and reinforce.

Learning Activity: (15 minutes) Play "Roll-a-Problem." Divide the class into diads. Give each diad 7 cubes. The six sides of the cubes are marked as follows:

2 are numbered 0-5
2 are numbered 5-10
3 are operational cubes (+,-,X,÷, Free Choice, Free Choice)

Each diad will roll all seven cubes and determine who can come up with the largest answer. Compare problems and check each other's work. The diad with the largest answer wins the round. Roll the cubes again to start the next round.

Evaluation: Grade the worksheets

Summary:
(8 minutes)

Gunfighter flashcards:
Divide the class into two groups. Select one student from each of the groups to begin the flashcard activity. Have the students face each other in front of the class (like gunfighters). Quickly bring out two flashcards with the problems on one side (facing the student) and the answer on the back. Hold the card such that the students can see the problem and you can see the answer on the back. The first student to correctly compute their problem will hold up his/her finger (like a gun), point it at the other person and shout out the answer. If they are correct, they win the gunfight, the other person dies, and a new challenger comes up from the loser's group to face the "champ." After three rounds of winning, the champ must retire, and another from his/her group takes his/her place. The group with the most retirees wins the "shoot-out."

ORDER OF OPERATIONS WORKSHEET

Complete the following two problems for enrichment:

A. $\frac{\square(\square + \square)}{\square} = 4$

B. $\square + \square\ (\square - \square) = 8$

COMPUTE:

1. 16/8 =
2. 2(7) =
3. 2(6) + 4 =
4. 2(8 − 1) + 6 =
5. $\frac{18-6}{2} =$
6. 3(7) =
7. 3 x 9 / 3 =
8. 7(10 + 2) =
9. 40/4 − 2 =
10. 8/4 + 12 =
11. (7−1) x 6 =
12. 3(8)/2 =
13. 10(7)/2 =
14. $\frac{40}{2(4)} =$
15. $\frac{6+10}{2+2} =$

ANSWER SHEET

ORDER OF OPERATIONS WORKSHEET

Complete the following two problems for enrichment:

A. $\frac{\square(\square + \square)}{\square} = 4$

B. $\square + \square(\square - \square) = 8$

Answers Vary

COMPUTE:

1. 16/8 = 2
2. 2(7) = 14
3. 2(6) + 4 = 16
4. 2(8 − 1) + 6 = 20
5. $\frac{18 - 6}{2} = 6$
6. 3(7) = 21
7. 3 x 9 / 3 = 9
8. 7(10 + 2) = 84
9. 40/4 − 2 = 8
10. 8/4 + 12 = 14
11. (7−1) x 6 = 36
12. 3(8)/2 = 12
13. 10(7)/2 = 35
14. $\frac{40}{2(4)} = 5$
15. $\frac{6 + 10}{2 + 2} = 4$

GUNFIGHTER FLASHCARDS

$$7(9-1)$$

$$6(8+2)$$

$$15-9+3$$

$$21 \div 3 + 11$$

$$(2+3)-(8-5)$$

$$(11-7)+(10+3)$$

$$\frac{16}{4}+8$$

$$13-\frac{15}{3}$$

$$\frac{20-10}{5}+1$$

$$\frac{7+7}{2}-5$$

GUNFIGHTER FLASHCARDS

$$\frac{3+4\times 2}{11}$$

$$\frac{12\div 4-3}{1}$$

$$\frac{2(15-9)}{4}$$

$$\frac{5(6+3)}{5}$$

$$\frac{42}{6}+\frac{64}{8}-\frac{20}{5}$$

$$\frac{81}{9}-\frac{54}{6}+\frac{36}{6}$$

$$3(8-5+1)$$

$$4(7+2-4)$$

$$2(7)-9\div 3$$

$$28\div 7\times 4-9$$

GUNFIGHTER FLASHCARDS

$7+3\times2-12\div4$

$\frac{3\times8\div4}{2}+5+7$

Make up some of your own!

↓

MATH / COMPUTER TECHNOLOGY

Academic Unit: Math (Academic class and Computer technology)

Lesson Topic: Decimals

Objective: The student will be able to assign correct value to decimal places. Essential elements and Teams: 1G, M1.

Resources/ Special Arrangements: Newsprint paper, play-dough, markers

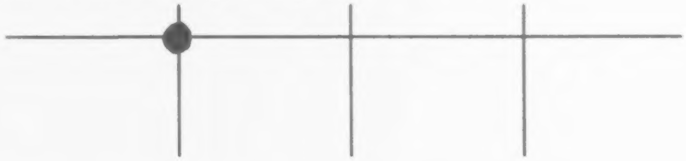
Introduction: (5 minutes) Ask the following questions, and follow with discussion:

1. What is smaller than "1" but larger than "0"?
2. Why is knowing about these things important?
3. How can we use this kind of information?

Method: Teacher demonstration
Cooperative group work

Delivery of Content: (30 minutes)

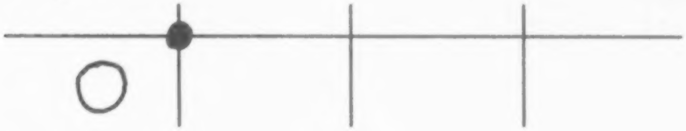
1. Start off with newsprint paper and draw the following diagram:



   Have the students (in groups) draw a similar diagram.

2. In the group, have the students play with the play-dough to prepare it for use and to provide an outlet for the students' desire to play with the play-dough, rather than seeing it as a tool for learning.

3. Have the students place the play-dough in 1 ball in the following position on their diagram:



Make the following comments and ask the following questions:

a. Notice the location of the play-dough ball in relation to the " ".
b. How many objects do we have?
c. What is the name of the position in which the play-dough is located?
d. Sharing the play-dough, divide the 1 ball into 10 smaller balls of equal size. Place them in the next column.
e. Look at their size. Are they smaller?
f. How many are there?
g. Therefore, what do you suppose the name of the 1st position after the decimal point is called?
h. Label the chart. (Teacher's and students')
i. Illustrate some examples on the board using decimal and fraction form:

    (1) Two tenths, 2/10 = .2
    (2) Four tenths, 4/10 = .4
    (3) Nine tenths, 9/10 = .9
    (4) Eight tenths, 8/10 = .8
    (5) One and three tenths, 1 3/10 = 1.3
    (6) Four and seven tenths, 4 7/10 = 4.7
    (7) Twenty seven and five tenths, 27 5/10 = 27.5

4. Now take one of the 10 balls under the tenth column and divide it again 10 times. Go through the same series of questions and do similar examples on the board:

    (1) Two hundredths, 2/100 = .02
    (2) Three hundredths, 3/100 = .03
    (3) Six hundredths, 6/100 = .06
    (4) Thirty-four hundredths, 34/100 = .34
    (5) Eight and thirteen hundredths, 8 13/100 = 8.13

5. Extend the concept to the next column, but don't actually separate the play-dough, because it would be too small. Have them visualize it as if they were dividing the play-dough. Go through the questioning techniques and examples:

    (1) Seven thousandths, 7/1000 = .007
    (2) One thousandth, 1/1000 = .001
    (3) Twelve thousandths, 12/1000 = .012
    (4) Fifty-three thousandths, 53/1000 = .053
    (5) One hundred twenty-three thousandths, 123/1000 = .123
    (6) Six hundred forty-two thousandths, 642/1000 = .642
    (7) Five and three hundred eighty-seven thousandths, 5 387/1000 = 5.387
    (8) Three hundred twenty-four and two hundred ninety-one thousandths, 324 291/1000 = 324.291

6. Go back and look at what happened to the 1 big ball of play-dough that everyone started with.

7. Go back through the steps one at a time and put the play-dough back together. Their newspaint chart should be completed and look like this:

Ones	Tenths	Hundredths	Thousandths

8. At this point, the students should be able to move from the concrete picture to the mathematical concepts. (Illustrate on the board, stressing the "and.") See Addendum #1 for guide.

Learning Activity: (12 minutes)

Have students complete "Decimal Worksheet." Review the sheet in class. *One suggestion is to allow students to complete the worksheet in pairs. Optional homework exercise is included.

Evaluation:

Grade "Decimal Worksheet" and Homework Assignment.

Summary: (8 minutes)

Rapid-fire the following questions randomly throughout the class:

1. What is the 2nd column to the right of the decimal point called?
2. What is the 1st column to the right of the decimal point called?
3. What is the 3rd column to the right of the decimal point called?
4. What is the 2nd column to the left of the decimal point called?
5. What is the 3rd column to the left of the decimal point called?
6. What is the 2nd column to the right of the decimal point called?
7. What is the 1st column to the right of the decimal point called?
8. Where does the decimal point go?

Then divide the class into two groups to conduct a short relay race competition. Each group will receive a different (but equal) list of numbers to write on the board in correct decimal form. The teacher will select a student from each group to begin the race. When the teacher says "Go," each student will leave his/her chair, go to the board as fast as possible, and write the first number on the board. As soon as the teacher has "ok'd" the number as correct, the student will select another student from their group to write the next number on the board and so on, until one group is the first to finish.

Card 1:

1. Five hundred twenty-seven thousandths
2. Twenty-three and six hundred eighty-three thousandths
3. Four tenths
4. Seventeen and one hundred seventeen thousandths
5. Forty-two hundredths
6. Seven thousandths
7. One hundred ninety-nine and nine hundred ninety-one thousandths
8. Seven and one tenth
9. Twenty hundredths
10. Fifty-nine thousandths

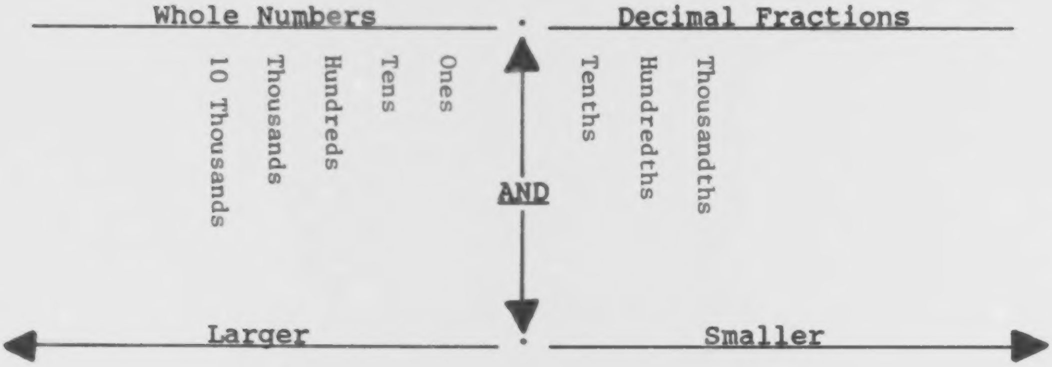
Card 2:

1. Six hundred seventeen thousandths
2. Forty and one hundred sixty-seven thousandths
3. Nine tenths
4. Three and four hundred eighty-two thousandths
5. Seventy-seven hundredths
6. One thousandth
7. Six hundred eleven and two hundred twenty-two thousandths
8. Five and three tenths
9. Eighty hundredths
10. Thirty-two thousandths

MATH / COMPUTER TECHNOLOGY

ADDENDUM #1

MATHEMATICAL CONCEPT OF THE DECIMAL



MATH / COMPUTER TECHNOLOGY

DECIMAL WORKSHEET

Complete the following problems by writing the value in numeric decimal form:

1. Fourteen hundredths = ____________
2. Twenty-one and twenty-seven thousandths = ____________
3. Two thousand seven hundred thirteen and eight tenths = ____________
4. Eleven hundredths = ____________
5. Twenty-one ten thousandths = ____________
6. Three hundred seven and ninety hundredths = ____________
7. Eighty-five hundredths = ____________
8. One thousand seven hundred forty-two and one tenth = ____________
9. Eleven and eleven hundredths = ____________
10. Sixteen and six hundred seventy-nine ten thousandths = ____________
11. Two hundred twenty-two and four tenths = ____________
12. Two hundredths = ____________
13. Twenty-eight thousand twenty-eight and twenty-eight thousandths = ____________
14. One hundred one and one hundred one ten thousandths = ____________
15. Fourteen and forty-four hundredths = ____________
16. Eleven thousand fifty-two and two hundred fifty-two thousandths = ____________
17. Two and seven tenths = ____________
18. Three thousandths = ____________
19. Six and eighty-nine ten thousandths = ____________
20. Nine thousand twenty-one and thirty-four hundredths = ____________

MATH / COMPUTER TECHNOLOGY

Academic Unit: Math (Academic and Computer Technology)

Lesson Topic: Converting Decimals to Fractions

Objective: The student will be able to convert simple decimals to fractions and reduce fractions with divisibility.

Resources/ Arrangements:

Transparency: "Making 'Cents' With Fractions"
Worksheet: 1 - 100 cents
Game: "Cents"
Banker's or Accountant's visor (optional)
6 Quarters, 10 dimes, 6 nickels and 5 pennies

Method:

Teacher demonstration
Cooperative groups
Guided work
Independent work

Introduction: (4 minutes)

Place the following coins on the top of desks, randomly scattered around the room. (*Optional - to really play the role, the teacher may wear the banker's visor.)

2 quarters; 1 quarter; 4 nickels; 2 quarters, 2 dimes and nickel; 1 quarter, 1 dime and 1 nickel; 6 dimes; 1 dime; 5 pennies

Go from desk to desk and ask, "How much of a dollar do you have?" If the students have difficulty, start with an easy one like two quarters.

After the students have responded with appropriate fraction amounts, like one-half and two-fifths, ask "Why?" The students are likely to be slow to answer, so tell them that today they will be able to explain why. Have the students recall the play-dough activity and tell them that today they will do something similar, but this time with money. (This may be a good time to pick up your money.)

Delivery of Content: (15 minutes)

On the blackboard or the overhead projector, review the conversions of $1.00.

4 quarters = $1.00
10 dimes = $1.00
20 nickels = $1.00
100 pennies = $1.00

Show the transparency "Making Cents With Fractions" and call on students to complete the decimal and fraction side.

When the first part of this transparency has been completed, stop and ask, "Do you see any connection with the coin and the fraction?" "Refer to the conversions to help you." If the students have trouble with this, use it as a re-teaching activity on the meaning of a fraction.

Continue with the transparency, this time mixing the coins. Call on students to complete the chart. Stop and ask, "Is there a connection between the decimal and the fraction?" Stop here to make that connection.

A decimal can be changed to a fraction by:

1. using the number as the numerator
2. using the place value position as the denominator, and
3. reducing the fraction to its lowest terms.

Return to the transparency to complete or to reinforce steps.

Review reducing fractions if necessary. (An information sheet, page 66, is included for duplication or use as a transparency.)

Learning Activity: (18 minutes) Working in cooperative groups of three, have students complete the "Cents Worksheet," converting the cents to decimal and fraction form. Watch for problems in reducing the fractions.

Summary: (18 minutes) Play "Cents" as whole group activity or small group.

MATH / COMPUTER TECHNOLOGY

MAKING "CENTS" OUT OF FRACTIONS

CENTS	DECIMALS	FRACTIONS
1. $.25	.25	1/4
2. $.10		
3. $.05		
4. $.50		
5. $.01		

DO YOU SEE THE CONNECTION BETWEEN THE MONEY AND THE FRACTION?

Let's try some with several different coins!

1. 3 NICKELS		
2. 1 QUARTER, 1 DIME, AND 1 NICKEL		
3. 3 QUARTERS		
4. 2 DIMES & 2 NICKELS		
5. 3 DIMES, 2 NICKELS, AND 5 PENNIES		
6. 2 QUARTERS, 2 DIMES		
7. 13 PENNIES		
8. 2 QUARTERS AND 17 PENNIES		

MATH / COMPUTER TECHNOLOGY

CENTS WORKSHEET

Complete the chart, reducing the fractions if necessary.

CENTS	DECIMAL	FRACTION	CENTS	DECIMAL	FRACTION
1			40		
2			41		
3			42		
4			43		
5			44		
10			45		
11					
12					
13					
14					
15					
20					
21					
22					
23					
24					
25					

MATH / COMPUTER TECHNOLOGY

CENTS WORKSHEET

Complete the chart, reducing the fractions if necessary.

CENTS	DECIMAL	FRACTION
95		
96		
97		
98		
99		
100		

MATH / COMPUTER TECHNOLOGY

CENTS ANSWER SHEET

Complete the chart, reducing the fractions if necessary.

CENTS	DECIMAL	FRACTION
1	.01	1/100
2	.02	1/50
3	.03	3/100
4	.04	1/25
5	.05	1/20
10	.1	1/10
11	.11	11/100
12	.12	3/25
13	.13	13/100
14	.14	7/50
15	.15	3/20
20	.2	1/5
21	.21	21/100
22	.22	11/50
23	.23	23/100
24	.24	6/25
25	.25	1/4
40	4	2/5
41	.41	41/100
42	.42	21/50
43	.43	43/100
44	.44	11/25
45	.45	9/20

CENTS ANSWER SHEET

Complete the chart, reducing the fractions if necessary.

CENTS	DECIMAL	FRACTION
95	.95	19/20
96	.96	24/25
97	.97	97/100
98	.98	49/50
99	.99	99/100
100	1.0	1/1 =1

MATH / COMPUTER TECHNOLOGY

INFORMATION SHEET

REDUCING FRACTIONS

A DECIMAL CAN BE CHANGED TO A FRACTION BY:

1. Use the number as the numerator

$$.75 = \frac{75}{100}$$

2. Use the place value position as the denominator

3. Then reduce the fraction to its lowest terms.

   a. Look for any number that can divide evenly into both the numerator and the denominator.

   b. If you cannot readily see a number, try either 2 or 5. If either 2 or 5 cannot divide evenly into the numerator and the denominator, the fraction is in its lowest terms.

Ex.: $.40 = \frac{40}{100} = \frac{8}{20} = \frac{4}{10} = \frac{2}{5}$

"CENTS" GAME INSTRUCTIONS

"Cents" is played similar to Bingo. "Cents" playing cards are handed out to the students, either individually or to small groups. The money amounts on the following page should be cut up into small pieces and drawn from a container one at a time. As each money amount is drawn, the students must convert the amount into a fraction form, check to see if his/her card has that fraction in one of the blocks, and "X" it out if it is there. The first student (or small group) to correctly "X" out five in a row or the four corners is the winner. Play may continue to determine 2nd, 3rd, etc. places.

Be certain to check each winning card for accuracy.

"CENTS" PLAYING NUMBERS

The teacher should cut out the following "money amounts" for play in the "CENTS" game. Place them in a small container, draw them one at a time, and announce the amount to the class. Give them a period of time to make necessary calculations. After the amount is called, place the paper in another location to be certain not to call it again.

$.65 $.48 $.55 $.50 $.15 $.12

$.35 $.20 $.70 $.85 $.25 $.01

$.30 $.90 $.60 $.75 $.95 $.80

$.45 $.40 $.10 $.16 $.05 $.20

$.33 $.44 $.24 $.64 $.96 $.08

$.21 $.63

If the amount is such that the teacher can express it in terms of "quarters", "dimes", "nickels", or "pennies", this will add additional challenge.

CENTS CARD # 1

1/4	2/5	2/10	8/10	1/2
1/20	1/5	3/20	19/20	3/5
3/4	4/5	FREE	1/10	13/20
17/20	63/100	3/10	7/20	9/20
9/10	7/10	21/100	11/20	1/20

CENTS CARD # 2

		FREE		

CENTS CARD # 3

1/100	3/20	3/10	1/2	7/10
9/10	1/20	2/25	4/25	33/100
11/20	3/4	FREE	19/20	1/10
1/5	2/5	3/5	4/5	3/25
1/4	9/20	13/20	17/20	2/25

CENTS CARD # 4

1/2	4/25	7/20	11/20	3/4
19/20	1/20	1/5	2/5	3/5
4/5	24/25	FREE	1/10	1/4
9/20	13/20	17/20	9/10	1/100
3/20	3/10	1/2	7/10	9/10

CENTS CARD # 5

1/10	1/5	2/5	16/25	3/4
4/5	3/25	1/4	9/20	13/20
17/20	9/10	FREE	19/20	1/100
3/20	3/10	1/2	7/10	1/20
4/25	7/20	11/20	3/4	17/20

CENTS CARD # 6

11/20	7/20	3/25	1/2	17/20
7/10	1/20	3/20	1/10	4/25
1/5	1/4	FREE	6/25	9/10
19/20	3/5	4/5	3/10	13/20
1/100	2/5	3/4	9/20	3/20

CENTS CARD # 7

13/20	12/25	11/20	1/2	3/20
3/25	7/20	1/5	7/10	17/20
1/4	1/100	FREE	3/10	9/10
3/5	3/4	19/20	4/5	9/20
2/5	1/10	4/25	1/20	1/5

CENTS CARD # 8

17/20	1/10	4/25	1/5	9/20
3/5	9/10	1/4	3/20	1/100
1/2	1/20	FREE	19/20	11/25
7/10	3/25	3/10	7/20	3/4
2/5	4/5	13/20	11/20	33/100

CENTS CARD # 9

1/5	1/20	17/20	1/4	3/4
3/10	3/25	7/10	11/25	7/20
9/10	9/20	FREE	3/5	19/20
11/20	1/100	2/5	1/10	1/2
3/20	4/25	13/20	4/5	7/10

CENTS CARD # 10

		FREE		

MATH / COMPUTER TECHNOLOGY

Academic Unit: Math (Computer Technology Class)

Lesson Topic: Budgeting for Independent Living

Objective: The student will be able to determine realistic costs of living expenses, estimate approximate required monthly income, and record the income and expense information in an acceptable bookkeeping (spreadsheet) form.

Resources/ Arrangements: One newspaper for each group of 2-3 students, computer spreadsheet software

Method: Discussion, brainstorming, newspaper investigation

Introduction: (2 minutes) Tell the students that budgeting is a vital phase of being able to fulfill dreams as well as take care of normal financial obligations. Each person will sooner or later have to manage their monies in some form or fashion in order to survive in today's world.

Ask the students the following questions to arouse interest and identification with the lesson:

1. How many of you would want to get your own apartment or house just as soon as you graduate from high school?
2. How many of you want to drive your own car? What kind?
3. How many of you feel like you would like to be single a few years and date before you get married?
4. About how much money do you think it will take just to move out on your own, and just survive? In other words, what is the least amount of income a person can have coming in each month and still (theoretically) make ends meet. (Point out that there are always unforeseen expenses that arise; but, we won't be including those expenses in today's exercise.)

Tell the students that often many people move out on their own, believing they can make ends meet with just a minimum wage job, and are quickly disappointed. Today, you will find out how low a wage can be and still allow you to leave home and live on your own.

Delivery of Content: (20 minutes)

Using a "spreadsheet", see example on page 81, draw on the chalkboard or on the overhead projector, fill amounts for the following expenses in the appropriate places as the students give you their estimates of those expenses. (*Note: lead the students a little in this exercise by "tempering" some of their amounts. Generally, the student's estimates will be very high. Bring the amounts down by making such comments as "Well, let's just say you might find a really good deal on this item." If your price is a little under a realistic price, it's OK, since it will assure the students that you are not inflating prices to try to "scare" them about the cost of living. It should leave a "haunting" feeling that the actual "prices of living" will no doubt be higher than the prices at which the class will arrive.)

1. **HOUSING** - You're just starting out, so how much does a basic, "no-frills" apartment cost? A rule of thumb is that housing should be somewhere between one-fourth and one-third of your income.

2. **UTILITIES** - Not too many apartments pay for electricity, but if they do, the price is higher.

3. **FOOD** - How much do you think you will spend on groceries? (Just for yourself... and this does not include eating out). A conservative estimate is about $5.00 per day. This also includes household items -soap, health & beauty aids, etc.

4. **CAR PAYMENT** - You've got to have a car, don't you? Let's get a used one right now...a real deal! Remember, this is just to get by. A good estimate is about $90.00.

5. **INSURANCE** - (for your car) $70.00 per month is as low as you will probably find.

6. **MEDICAL INSURANCE** - Better get it...and many companies offer their employees excellent group rates...as low as $35.00 per month.

7. **TELEPHONE** - This may seem frivolous, but you will probably need one, just to get and keep a job. About $25.00 per month.

8. **GASOLINE AND CAR MAINTENANCE** - At least a tank per week (figure cost) plus about $35.00 minimum for oil change, wiper blades, inspections, tags, tires, repairs, etc.

9. **DATES/ENTERTAINMENT** - You will most likely want to go out on a date or a night out on the weekend. You'd better set aside at least $20.00 for each one. You really can't afford any more than that.

10. **CLOTHING** - Clothes wear out. A person should add on to their wardrobe each month, even if it's a small amount like $20.00. Add at least $5.00 for laundry.

11. **SAVINGS** - You must set aside for emergencies or it could be disastrous. Let's go with $50.00

By adding up the "bare-bones" budget expenses, you are probably at a total of about $850.00 to $900.00. Of course, you should point out to students that it is not sufficient to make only that amount. Since taxes are taken out of their checks (7% FICA and approx. 7% Inc. tax), they will need to earn about $1050.00 or somewhere between $6.50 and $7.00 per hour. That's just to make it. The teacher should then enter this amount in the "income" position of the spreadsheet. Of course, many students will "complain" that they simply could not live under the conditions which you have described. You should point out that they need to be preparing for an occupation that will pay them a higher wage.

In fact, the learning activity that will follow will give the student an opportunity to discover just how much they must make in order to move out on their own and live the life style they demand.

Learning Activity: (25 minutes)

Using the spreadsheet program and a newspaper (one for each group), divide the students into groups of two or three each, and have each group complete the "Budget" assignment. Each group will search through the newspaper until they find the type of housing, car, insurance, entertainment, etc. that they feel is most appropriate for them if they were moving out on their own. Have the students estimate amounts for items that cannot be found from the newspaper (savings, clothing allowance, etc.) by getting some kind of idea from the ads related to those kinds of items. (For example, students may be able to estimate a realistic clothes or food budget by looking up the prices of clothes or food.) As monthly expenses are calculated, have the students determine the necessary wage per hour to provide that kind of income. The third step is to complete the spreadsheet in income statement form. (Income at the top of a column; expenses following; and amounts over or under at the bottom of the column.) Students should be given an opportunity to share their results. Teacher may recognize the most thrifty group, the most extravagant group, etc.

Evaluation:

The teacher will evaluate the student's spreadsheet exercise for level of understanding as the students give oral feedback to the class on their results. The teacher will check for realistic amounts on the spreadsheet and for proficiency in using the spreadsheet program. (Adding/subtracting cells, etc.)

Summary: (8 minutes)

The teacher will use the summary transparency to draw additional feedback from the students and list each of the budget items included in a budget. The teacher will present the summary transparency which he/she has prepared in advance on the overhead projector. As each budget item is revealed, the students will identify the most correct budget amount for that item from the choices given. The teacher might ask the students to justify their answers, or even add a third amount that they feel is more realistic.

HOW TO USE THE "BUDGET AMOUNTS" SUMMARY TRANSPARENCY

The teacher should fill in the blanks on the transparency before the summary activity begins. For each of the budget items, the teacher should provide a realistic amount in one of the blanks and an unrealistic amount in the other. Be certain to change between the left and right blank when deciding in which blank to put the realistic amount. Try to avoid any patterns.

Reveal the budget items one at a time and let the students call out which amount is the most realistic. You may want them to justify their answers. Occasionally, you may want to call on certain students to assure participation.

MATH / COMPUTER TECHNOLOGY

Transparency

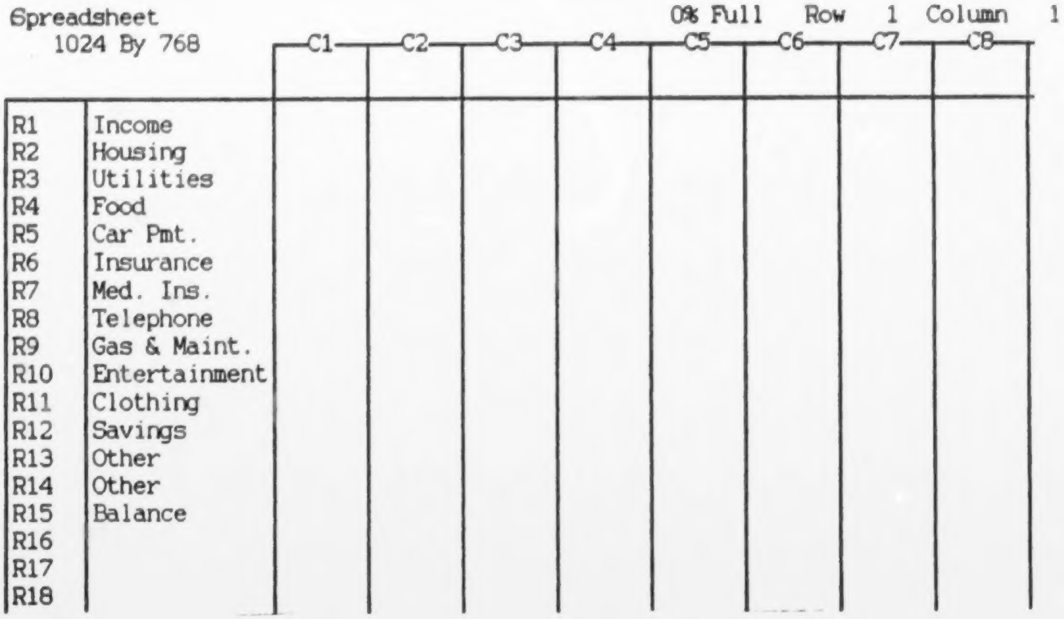
BUDGET AMOUNTS

Housing		
Utilities		
Food		
Car Pymt.		
Insurance		
Med. Ins.		
Telephone		
Gas & Maint.		
Entertainment		
Clothing		
Savings		
TOTAL		

MATH / COMPUTER TECHNOLOGY

BUDGET SPREADSHEET

Using a newspaper, prepare a budget on your computer spreadsheet to show Income, Expenses, and Balance Remaining. Find items in the newspaper for each of the items listed in the title column of the spreadsheet. Use the paper to estimate monthly expenses for items that you cannot find in the paper such as a monthly food payment, etc. Proper form would be to enter all items in column #1 of the appropriate row. Your spreadsheet may look similar to the following:



Spreadsheet 0% Full Row 1 Column 1
1024 By 768

		C1	C2	C3	C4	C5	C6	C7	C8
R1	Income								
R2	Housing								
R3	Utilities								
R4	Food								
R5	Car Pmt.								
R6	Insurance								
R7	Med. Ins.								
R8	Telephone								
R9	Gas & Maint.								
R10	Entertainment								
R11	Clothing								
R12	Savings								
R13	Other								
R14	Other								
R15	Balance								
R16									
R17									
R18									

Enter a monthly income amount in R1C1 that you feel is realistic for the kind of job you will be doing when you first move out on your own. Get an idea of the amount from the "Help Wanted" ads.

Calculate Taxes (Income x 14%), Total Expenses (add R2C1 through R14C1), and Balance (Income - Total Expenses) by placing the cursor in the appropriate cell for that item in column #1 and entering the correct spreadsheet formula that will perform the necessary mathematical operation. Hopefully the Balance is a positive number!

An optional activity is to create an item named "Wages." You will get an idea of how much your hourly wage must be by dividing Total Expenses by 168. Calculate this amount by placing the cursor in the appropriate cell and entering the spreadsheet formula that will divide Total Expenses by 168.
(8 hours per day x 21 working days in a month)

MATH / COMPUTER TECHNOLOGY

Academic Unit: Math (Academic class)

Lesson Topic: Budgeting for Independent Living

Objective: The student will be able to determine realistic costs of living expenses, estimate approximate required monthly income, and record the income and expense information in an acceptable bookkeeping (column sheet) form.

Resources/ Arrangements: One newspaper for each group of 2-3 students

Method: Discussion, brainstorming, newspaper investigation

Introduction: (2 minutes) Tell the students that budgeting is a vital phase of being able to fulfill dreams as well as take care of normal financial obligations. Each person will sooner or later have to manage their money in some form or fashion in order to survive in today's world.

Ask the students the following questions to arouse interest and identification with the lesson:

1. How many of you would like to get your own apartment or house just as soon as you graduate from high school?
2. How many of you want to drive your own car? What kind?
3. How many of you feel you would like to be single a few years and date before you get married?
4. About how much money do you think it will take just to move out on your own, and just survive? In other words, what is the least amount of income a person can have coming in each month and still (theoretically) make ends meet. (Point out that there are always unforeseen expenses that arise; but, we won't be including those expenses in today's exercise.)

Tell the students that often many people move out on their own, believing they can make ends meet with just a minimum wage job, and are quickly disappointed. Today, you will find out how low a wage can be and still allow you to leave home and live on your own.

Delivery of Contents: (20 minutes)

Using a "column sheet," see example page 87, drawn on the chalkboard or on the overhead projector, fill in amounts for the following expenses in the appropriate places as the students give you their estimates of those expenses. (*Note: lead the students a little in this exercise by "tempering" some of their amounts. Generally, the student's estimates will be very high. Bring the amounts down by making such comments as "Well, let's just say you might find a really good deal on this item." If your price is a little under a realistic price, it's OK, since it will assure the students that you are not inflating prices to try to "scare" them about the cost of living. It should leave a "haunting" feeling that the actual "prices of living" will no doubt be higher than the prices at which the class will arrive.)

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2. **UTILITIES** - Not too many apartments pay for electricity, but if they do, the price is higher.

3. **FOOD** - How much do you think you will spend on groceries? (Just for yourself... and this does not include eating out). A conservative estimate is about $5.00 per day. This also includes household items -soap, health & beauty aids, etc.

4. **CAR PAYMENT** - You've got to have a car, don't you? Let's get a used one right now...a real deal! Remember, this is just to get by. A good estimate is about $90.00.

5. **INSURANCE** - (for your car) $70.00 per month is as low as you will probably find.

6. **MEDICAL INSURANCE** - Better get it...and many companies offer their employees excellent group rates...as low as $35.00 per month.

7. **TELEPHONE** - This may seem frivolous, but you will probably need one, just to get and keep a job. About $25.00 per month.

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9. **DATES/ENTERTAINMENT** - You will most likely want to go out on a date or a night out on the weekend. You'd better set aside at least $20.00 for each one. You really can't afford any more than that.

10. **CLOTHING** - Clothes wear out. A person should add on to their wardrobe each month, even if it's a small amount like $20.00. Add at least $5.00 for laundry.

11. **SAVINGS** - You must set aside for emergencies or it could be disastrous. Let's go with $50.00

By adding up the "bare-bones" budget expenses, you are probably at a total of about $850.00 to $900.00. Of course, you should point out to students that it is not sufficient to make only that amount. Since taxes are taken out of their checks (7% FICA and approx. 7% Inc. tax), they will need to earn about $1050.00 or somewhere between $6.50 and $7.00 per hour. That's just to make it. The teacher should then enter this amount in the "income" position of the column sheet.

Of course, many students will "complain" that they simply could not live under the conditions which you have described. You should point out that they need to be preparing for an occupation that will pay them a higher wage. In fact, the learning activity that will follow will give the student an opportunity to discover just how much they must make in order to move out on their own and live the life style they demand.

Learning Activity: (25 minutes)

Using the "Budget" column sheet and a newspaper (one for each group), divide the students into groups of two or three each, and have each group complete the "Budget" assignment. Each group will search through the newspaper until they find the type of housing, car, insurance, entertainment, etc. that they feel is most appropriate for them if they were moving out on their own. Have the students estimate amounts for items that cannot be found from the newspaper (savings, clothing allowance, etc.) by getting some kind of idea from the ads related to those kinds of items. (For example, students may be able to estimate a realistic clothes or food budget by looking up the prices of clothes or food.) As monthly expenses are calculated, have the students continue the worksheet to determine the necessary wage per hour to provide that kind of income. The third step of the worksheet is to complete the income statement on the column form. Students should be given an opportunity to share their results. Teacher may recognize the most thrifty group, the most extravagant group, etc.

Evaluation:

Teacher will evaluate the student's "Budget" column sheet exercise for level of understanding as the students give oral feedback to the class on their results. The teacher will check for realistic amounts on the worksheet and for accuracy in the calculations.

Summary: (8 minutes)

The teacher will use the summary transparency to draw additional feedback from the students and list each of the budget items included in a budget. The teacher will present the summary transparency which he/she has prepared in advance on the overhead projector. As each budget item is revealed, the students will identify the most correct budget amount for that item from the choices given. The teacher might ask the students to justify their answers, or even add a third amount that they feel is more realistic.

HOW TO USE THE "BUDGET AMOUNTS" SUMMARY TRANSPARENCY

The teacher should fill in the blanks on the transparency before the summary activity begins. For each of the budget items, the teacher should provide a realistic amount in one of the blanks and an unrealistic amount in the other. Be certain to change between the left and right blank when deciding in which blank to put the realistic amount. Try to avoid any patterns.

Reveal the budget items one at a time and let the students call out which amount is the most realistic. You may want them to justify their answers. Occasionally, you may want to call on certain students to assure participation.

MATH / COMPUTER TECHNOLOGY

Transparency

BUDGET AMOUNTS

Housing		
Utilities		
Food		
Car Pymt.		
Insurance		
Med. Ins.		
Telephone		
Gas & Maint.		
Entertainment		
Clothing		
Savings		
TOTAL		

MATH / COMPUTER TECHNOLOGY

BUDGET COLUMN ACTIVITY SHEET

Using a newspaper, prepare a budget on the following columns to show Income, Expenses, and Balance remaining. Find items in the newspaper for each of the items listed in the Budget item column on the left. Use the paper to estimate monthly expenses for items that you cannot find in the paper such as a monthly food payment, etc. Proper form would be as follows: Income entered in column #2; Expenses entered in column #1; Total expenses listed in column #2; and Balance entered in column #2.

BUDGET ITEM	-1-		-2-	
Income				
Housing				
Utilities				
Food				
Car Payment				
Insurance				
Medical Ins.				
Gasoline & car maintenance				
Entertainment				
Clothing				
Savings				
Other				
Taxes (14%)				
Total Expense				
Balance				

Divide the Total Expenses by 168 to determine the wage per hour necessary to pay the bills. The answer is:____________________.

MATH / COMPUTER TECHNOLOGY

BUDGET COLUMN SHEET

Enter an income amount in row #1, column #2 that you feel is realistic for the kind of job you will be doing when you first move out on your own. Get an idea from the help wanted ads. Subtract Total Expenses from income to determine the balance remaining. Hopefully, this is a positive number!

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

Reading Comprehension: Detail

Objectives and Essential Elements:

Students will be able to read an advertisement and fill in a telephone order form.

Resources/Materials Required:

Individual copies of worksheet, page 90

Introduction (5 minutes):

Emphasize the fact that there will be many occasions when they may need to order an item by phone. To do so, they will need to gather all the important information which will be needed when they place the order. This exercise will help them pick out this information and place it on a phone order form.

Method:

Brief lecture and individual seat work

Delivery of Content:

1. Have a student read to the class the directions found on the worksheet.
2. Point out the advertisement they will be reading in order to pick out the information needed for the order form.
3. Discuss the order form found at the bottom of the page.
4. Students will then complete the phone order form. Assist as needed.

Learning Activity:

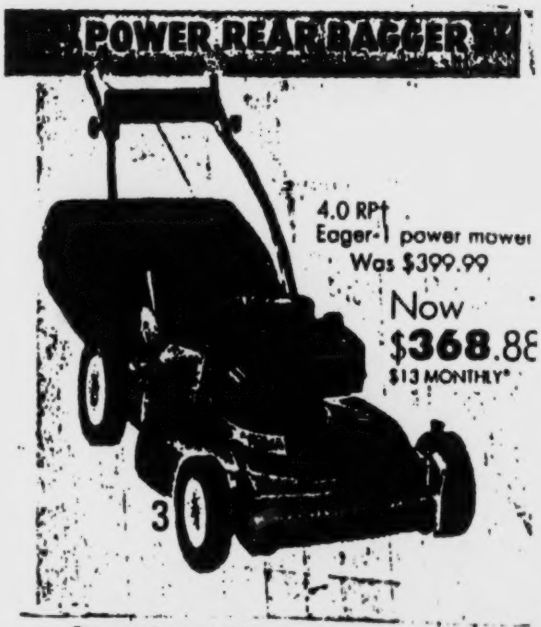
1. Students will read the advertisement.
2. Students will fill out the order form.
3. The English teacher will check to see that all the forms are completed correctly.
4. The English teacher will take the worksheets to the Small Engine Repair teacher who will lead the students in a cooperative lesson activity.

Evaluation:

The objectives will be achieved when students have found the necessary information needed to correctly complete the phone order form.

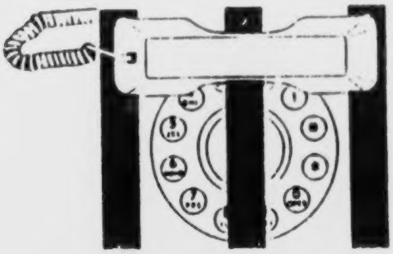
PLACING A PHONE ORDER

Directions: You wish to order the Power Rear Bagger lawnmower found on page 72 of Leroy's Lawn and Garden catalog. since you live out of town, you will have to order the lawnmower by telephone. Read the advertisement and complete the order form at the bottom of the page. Use your own name and telephone number and the current date. Your account number is 1234-56-78910.



3 ~~2~~ speed gear driven mower Breeze thru your lawn with this power propelled rear bagger with 4.0 RP† Craftsman II engine. The efficient, maneuverable design gives dependable, lightweight operation while cutting a 22-in. wide path and letting you cut close on either side. Features our Super Pull-Lite® start system. Fully covered system resists clogging and getting caught on low-lying shrubs. Solid-state ignition for easy starts, less maintenance. No-adjust carburetor automatically provides the fuel to air mixture; top breather lets you mow at any angle along side slopes without oil loss. No-rust 1.5 qt. fuel tank. Cast-iron cylinder liner doubles engine life. EZ oil fill with dipstick. Aluminized muffler. Folding handles for easy storage. Lift-top catcher. Leaf catchers and chute deflectors (not incl.) expand the versatility of your rear bagger. 2 year warranty**. Wt. 97 lbs.

71 BF 37234N ....Was $399.99; **Now $368.88**



Phone Order Planner

Your guide for placing fast, accurate phone orders!

Use the planner below to jot down your selections. Then when you call to place an order, simply read the information requested by your order taker.

TO ORDER FROM HOME

CALL: 1-222-333-4444

Account

Telephone

Catalog number	Color no.	Size	How many	Price each	Total price	Name of item	Page no.

Date ordered ____________

Total for merchandise $

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

1. Ordering by Telephone
2. Completing an Invoice

Objectives and Essential Elements:

1. The students will be able to order an item by telephone.
2. The students will be able to fill out an invoice.

Resources/Materials Required:

1. Two telephones
2. Completed worksheets from English teacher
3. Individual copies of invoice on page 93

Introduction (5 minutes):

1. Review what was done in the English class the day before (read an advertisement and complete a telephone order form).
2. Hand each student a copy of the order form that he/she completed in English class.
3. Ask for volunteers to play the part of the company order clerk and the customer.

Method:

Role play and individual seat work

Delivery of Content:

1. Brainstorm how to order by phone (gather all the information, speak clearly and distinctly, be polite, etc.).
2. Let pairs of students role play the telephone ordering of the lawn mower.
3. Follow the role plays with a discussion and review.
4. Discuss with the students what happens when an order has been received from a customer (fill out an invoice).
5. Give each student a copy of an invoice and discuss what kind of information is needed to complete the invoice.
6. Each student will then use his/her worksheet to complete an invoice for the same lawn mower. Teacher will assist as needed.
7. When each student has completed the invoice, the Small Engine Repair teacher will take the invoice to the English teacher. She will then do the cooperative lesson plan: Business Letters.

ENGLISH/SMALL ENGINE REPAIR

Learning Activity:

1. Let pairs of students sit at the front of the classroom and role play the telephone ordering of the lawn mower.
2. Students will complete an invoice.

Evaluation:

The objectives will be achieved when students have been able to (1) order an item by phone, and (2) correctly complete an invoice.

ENGLISH/SMALLL ENGINE REPAIR

INVOICE FORM

Invoice 44-400

Invoice

Leroy's Lawn and Garden Company
9876 Green Grass Lane
Baggit, Texas 13579

No.

Date

Sold To ______________________

■ ______________________

■ ______________________

Shipped to ______________________

■ ______________________

■ ______________________

Your Order No.	Our Order No.	Salesman	
Date Shipped	Shipped VIA	F.O.B.	Terms

Quantity Ordered	Quantity Shipped	Stock Number/Description	Price	Per	Amount

Original / Invoice

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

Business Letters

Objectives and Essential Elements:

1. The students will be able to write a business letter.
2. The students will be able to fold and place the business letter in a properly addressed envelope.

Resources/Materials Required:

1. Copies of invoice from Small Engine Repair teacher, page 93.
2. Individual copies of worksheets found on pages 96-99.
3. Individual envelopes and blank sheets of paper.

Introduction (5 minutes):

1. Explain that students will use the invoice completed in their Small Engine Repair class to write a business letter.
2. Review how the students ordered a lawn mower by telephone and explain that they will now order the same lawn mower by sending a business letter.

Method:

Class discussion and individual seat work

Delivery of Content:

1. Discuss the information needed to write a business letter.
2. Hand out a practice business letter form, page 96.
3. Describe the six parts of a business letter: heading, inside address, salutation, body, closing, and signature.
4. Examine the kind of information found in the body of the letter (use invoice).

Learning Activity:

1. Distribute copies of "Writing a Business Letter", page 97.
2. Hand out a practice letter form, page 98.
3. Assist students in writing a draft of a business letter.
4. Check and correct each student's draft.

5. As each student's draft is approved, dispense blank sheets of paper on which they will write their business letter.
6. Hand out a form to practice addressing an envelope, page 99.
7. Provide envelopes to address and enclose their letter.
8. Practice correct way to fold business letter.

Evaluation:

The objectives will be achieved when students have a final copy of an appropriately written business letter and envelope.

ENGLISH/SMALL ENGINE REPAIR

PRACTICE BUSINESS LETTER FORM

Your Address
City, State, Zip code)
Date

Name of Person to whom writing
Title of Person to whom writing
Address of Person (street)
Address of Person (city) (state)

Dear ______________________:

Closing ________________,

Your name

ENGLISH/SMALL ENGINE REPAIR

WRITING A BUSINESS LETTER

Directions: This time, you will order the same Power Rear Bagger lawn mower from Leroy's Lawn and Garden Company by letter. Leroy's address is 9876 Green Grass Lane, Baggit, Texas 13579. Using the information found on the invoice completed earlier, write a business letter. After writing your letter, fold the letter appropriately, and place it in a properly addressed envelope.

ENGLISH/SMALL ENGINE REPAIR

PRACTICE LETTER FORM

____
____
____

____
____
____
____

________________________:

____
____
____
____
____
____
____
____

______________________________,

____

ENGLISH/SMALL ENGINE REPAIR

PRACTICE ENVELOPE FORM

Your name
Street Address
Town, State Zipcode

Company Name
Street Address
Town, State Zipcode

Use the space in the box below
to practice addressing your envelope.

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

1. Making Customer Complaints
2. Receiving Customer Complaints

Objectives and Essential Elements:

1. The students will be able to verbally register a complaint.
2. The students will be able to respond appropriately to a customer's complaint.

Resources/Materials Required:

Individual copies of "Making and Receiving a Customer Complaint", page 102.

Introduction (5 minutes):

Review what was done the day before in English class (order an item by letter). Explain that the letter was received and the lawn mower was delivered to the customer. Time has passed and the lawn mower has been repaired several times. The customer (student) is upset about the cost of repairs and amount of lost time that has been involved in making the repairs.

On the other hand, the manager believes that the customer is not maintaining the lawn mower properly. He believes that the repairs are a result of the customer's irresponsibility.

Method:

Group work and simulation

Delivery of Content:

1. Hand out copies of page 102, which explains the situation.
2. Divide students into two groups (customers and managers).
3. Allow the students 10 minutes to plan their reaction to the situation.

Learning Activity:

1. After being divided into the two groups, the students will plan and then simulate how they, as the customer and/or the manager, would handle the problem. Each group should select one student to perform in the simulation.
2. The teacher will then lead a discussion about how to: (1) properly register a complaint, and (2) react to customer complaints. Students, as monitors, can list on the chalkboard the appropriate steps derived from the class discussion.

Evaluation:

The objectives will be achieved when the students can list the steps involved in registering a complaint and in reacting to a customer's complaint.

MAKING AND RECEIVING A CUSTOMER COMPLAINT

Situation:

1. The Customer

   The lawn mower has broken down three times and you are angry about the money you have spent in repairs. You want your money back or a new lawn mower. How are you going to handle this situation?

2. The Service Manager

   Although the lawn mower has broken down three times, you feel that the customer is not maintaining the lawn mower properly. You, as the Service Manager, handle customer complaints. How are you going to react to this customer's demands?

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

Sequence

Objectives and Essential Elements:

1. The students will be able to read directions for "How to Sharpen a Lawn Mower Blade" and list the five steps involved.
2. The students will be able to number the pictures to match the steps.

Resources/Materials Required:

Individual copies of the "How to Sharpen a Lawn Mower Blade", pages 104 and 105.

Introduction (5 minutes):

Remind the students that they had ordered a lawn mower from Leroy's Lawn and Garden Company. Although they had problems earlier, the lawn mower now works very well. However, they need to sharpen the blade of the lawn mower. The short article they will read tells them how to perform this task.

Method:

Individual reading and seat work

Delivery of Content:

1. Provide students with a copy of the worksheet with the article on pages 104 and 105.
2. After the students have read the article and listed the steps, provide a copy of the second sheet which has five pictures that need to be numbered to match the five steps.

Learning Activity:

1. The students will read the article silently and list the five steps in order.
2. The students will number the five pictures to match the five steps.

Evaluation:

The objectives will be achieved when the students are able to identify the five steps and match a picture to each step.

"HOW TO SHARPEN A LAWN MOWER BLADE"*

There are a few ways to sharpen a mower blade. You can either use a file or a special sharpening stone that mounts in an electric drill. The blade can be sharpened while it is on the mower, or it can be removed for sharpening at the workbench. I prefer removing the blade. This allows greater control and accuracy.

Before you touch the blade, disconnect the sparkplug wire and tie it away from the sparkplug. This will eliminate any chance of the mower starting accidentally. Next, tip the mower on its side (do this before refilling the crankcase and fuel tank) and scrape away caked-on grass from the underside of the mowing deck.

To hone the blade's cutting edges without removing it, use a drill-mounted sharpening stone. Start the drill and slowly guide the stone across the edge. Make the same number of passes over each edge; otherwise, the blade will be out of balance.

This drill accessory is fine for honing a dull blade. However, if a blade is badly nicked or chipped, remove it, reshape the cutting bevels on a bench grinder, and then sharpen the edges.

Using a single-cut course file, stroke across the entire cutting edge. Hold the file at an angle to match the original bevel. Count the strokes made until the edge is sharp. Then, make the same number of strokes on the blade's other edge to ensure that the same amount of metal is removed from both sides.

It is very important that a blade is balanced. An out-of-balance blade will vibrate and eventually wear out the bearings or bend the crankshaft. A simple way to test a blade's balance is with a pocket knife. If the blade does not balance on the knife's edge, file the heavy end.

List the five steps involved in sharpening a lawn mower blade.

1. ______________________________

2. ______________________________

3. ______________________________

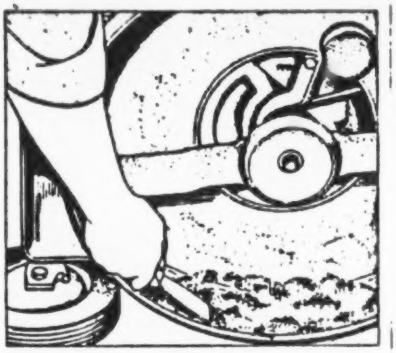
4. ______________________________

5. ______________________________

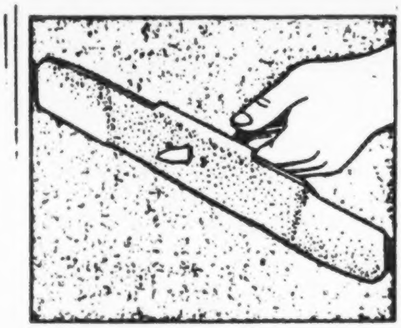
---

*Rosario Capotostu and George Retseck, "How to Sharpen a Lawn Mower Blade," Popular Mechanics, Vol. 167, #2, March 1989.

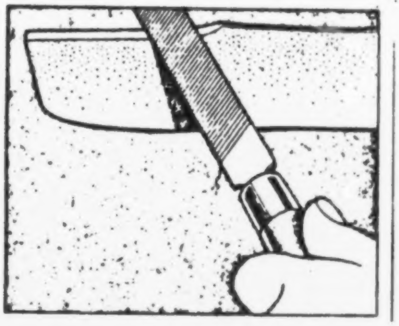
2. Number the pictures to match the steps in sharpening a lawnmower blade.



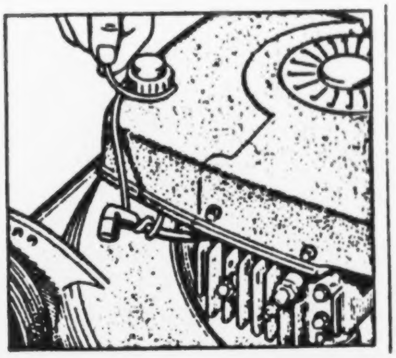
a. ________



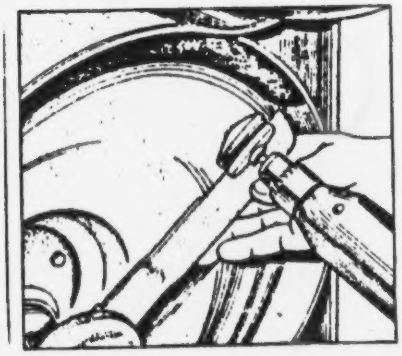
b. ________



c. ________



d. ________



e. ________

ENGLISH/SMALL ENGINE REPAIR

KEY

1. List of Steps

    1. Disconnect the sparkplug wire and tie it away from the sparkplug.
    2. Scrape away caked-on grass from the underside of the mowing deck.
    3. Use a drill-mounted sharpening stone to hone blade's edges.
    4. Stroke across the entire cutting edge using a single-cut course file.
    5. Check balance of blade with a pocket knife.

2. Matching Pictures

a. 2

b. 5

c. 4

d. 1

e. 3

SMALL ENGINE REPAIR/ENGLISH

Lesson Topic:

1. Sequence and Order
2. Following Directions and Giving Directions

Objectives and Essential Elements:

The students will be able to read an article and list, in order, the steps to be taken in maintaining a chain saw.

Resources/Materials Required:

1. Individual copies of articles, pages 109-111
2. Chain saw

Introduction (5 minutes):

Have a chain saw displayed at the front of the class. Review what the students did in English class (read an article and then put sentences in order). Explain that they will also learn to put things in order in this class. Today, they will be discussing how to maintain a chain saw.

Method:

Individual reading, small group work, and demonstrations

Delivery of Content:

1. Divide the class into three groups.
2. Provide each student in each group a copy of the article that group will be working with, pages 109-111.
3. Each student needs to read the article and then number the steps involved.

Learning Activity:

1. When all the members of each group have completed reading and numbering, they will need to agree on the ordering of the steps found in their article. Each group will elect a student(s) to work with the teacher.
2. After all groups have finished, the teacher will work with a student from the first group. The student will read to the teacher the steps, in order, that the teacher will need to follow.
3. For groups two and three, one student from each group will read the steps to another student who will then demonstrate what he is being told to do.

Evaluation:

The objectives will be achieved when students are able to correctly list the steps involved in maintaining a chain saw and to follow the directions provided.

"SPARKPLUG"*

Begin maintenance on your chain saw by draining the oil and gas fuel mixture from the fuel tank or by running the engine until the tank is dry. If your saw has been sitting for a couple of months, it is a good idea to flush the empty tank with a little fresh gas to remove any oil sediment.

Next, remove the sparkplug and check its electrodes for dirt, oil and corrosion. A fouled plug indicates several possible problems: improper carburetor adjustments, the wrong gas-to-oil fuel mixture and, in some cases, excessive flooding when starting the engine.

We will talk about carburetor adjustments later, but the other two problems are easy to correct. Simply follow the manufacturer's fuel mixture requirements as well as the directions for proper starting technique.

If your plug is fouled, clean it thoroughly with emery paper and shake out or blow away any debris. It is also a good idea to wash the plug in gas, using an old toothbrush. After the plug is dry, closely inspect the center and curved electrode for pitting. If either is pitted or rounded over, file both until they are smooth and flat, then gap the plug to match manufacturer's specifications. Frequent users should install a new plug every 100 hours of engine use. A ballpark figure for occasional users is to replace the plug every year.

Number the following sentences in the order they appeared in the above selection.

_____ 1. File center and curved electrode.
_____ 2. Install the new plug.
_____ 3. Drain the fuel tank.
_____ 4. Wash sparkplug in gas.
_____ 5. Gap the plug.
_____ 6. Remove and clean sparkplug.

*Steven Wilson, "How to Maintain Your Chain Saw," Popular Mechanics, Vol. 166, #1, January 1989.

SMALL ENGINE REPAIR/ENGLISH

"MUFFLER AND SPARK ARRESTOR"*

The muffler has two basic purposes: to quiet engine sound and to direct harmful exhaust gases away from the user. If it is loose and/or corroded, it will fail to do both jobs. Therefore, it is a good idea to inspect it periodically.

To do this job, you first have to remove the covering panel that prevents you from touching the very hot muffler during operation. This is usually part of the chain sprocket housing. Then wiggle the muffler to make sure it is tight. If it is not, tighten the bolts to the torque specifications given in your owner's manual. If the muffler is corroded, replace it.

Depending on the age and make of your saw, it may or may not come equipped with a spark arrestor. This device is simply a fine metal screen that prevents red-hot exhaust particles from leaving the muffler and possibly causing a fire. These days you cannot cut on most public lands unless your saw has an arrestor.

On your saw, this screen is located just below the exhaust deflector fins. By unscrewing the fin plate, the arrestor can be lifted out and washed with soapy water and a toothbrush. Compressed air also works well to clean this screen. Because the arrestor is exposed to such intense heat, holes are frequently burned in the screen. When this happens, the arrestor should be replaced. In any case, you should inspect the arrestor every time you use the saw to make sure it is in good shape.

On some saws, particularly older ones, this arrestor can be screwed to the inside of the muffler. In such cases, the muffler has to be disassembled to reach it. Consult your owner's manual for the more involved procedure.

Now that the muffler and engine fins are exposed, brush away and vacuum any debris. Be especially careful to remove the debris from around the engine cooling fins. Because these saws are air cooled, such debris reduces the airflow around the engine and can cause overheating and damage.

Number the following sentences in the order they appeared in the selection.

______ 1. Unscrew the fin plate.
______ 2. Brush away and vacuum debris.
______ 3. Remove covering panel.
______ 4. Tighten muffler.
______ 5. Lift out arrestor.
______ 6. Wash arrestor.

*Steven Wilson, "How to Maintain Your Chain Saw," *Popular Mechanics*, Vol. 166, #1, January 1989.

SMALL ENGINE REPAIR/ENGLISH

"CLEANING THE AIR FILTER"*

Your chain saw engine will run well only if the proper amount of fuel and air are mixed in the carburetor. Because of this, it is essential that you keep your air filter clean at all times.

To check your air filter, begin by brushing away dirt and debris from around the filter cover Then press the CHOKE button to close off the carburetor port. This will prevent any debris. (Note: On some saws, the choke is simply a flapper built into the carburetor cover. Once the cover is removed, the carburetor port is exposed. On such saws, be extremely careful when removing the cover to avoid debris falling into the port.) Remove the filter cover, take it out and brush clean.

Wash the filter according to manufacturer's recommendations. Soap and water can be used before blowing dry the filter with compressed air.

However, some manufacturers suggest other solvents. No matter what your situation, replace the filter if it is torn or still dirty after several attempts at cleaning it.

List the steps in cleaning the chain saw's air filter.

1. ____

2. ____

3. ____

4. ____

5. ____

6. ____

---

*Steven Wilson, "How to Maintain Your Chain Saw," Popular Mechanics, Vol. 166, #1, January 1989.

SMALL ENGINE REPAIR/ENGLISH

KEY

1. "Sparkplug"

   3

   6

   4

   1

   5

   2

2. "Muffler and Spark Arrestor"

   3

   4

   1

   5

   6

   2

3. "Cleaning the Air Filter"

   1. Brush away dirt.

   2. Press CHOKE button.

   3. Remove filter cover.

   4. Clean and brush filter.

   5. Wash filter.

   6. Blow dry filter.

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

1. Vocabulary Building -- Special/Technical
2. Dictionary Skills

Objectives and Essential Elements:

1. The students will be able to locate words in the dictionary.
2. The students will be able to recognize and separate compound words related to Small Engine Repair.

Resources/Materials Required:

1. A dictionary for each student
2. Individual copies of "Dictionary Skills, page 115

Introduction (5 minutes):

*Note: Students will be able to build on previous knowledge related to dictionary skills.

Explain that students will be introduced to vocabulary related to their Small Engine Repair class. All the words on the worksheet are words found in their textbook.
Review: compound words, entry words, and guide words

Method:

Brief explanation from teacher, then individual seat work.

Note: This can be done in pairs or groups of four.

Delivery of Content:

1. Provide a copy of "Dictionary Skills" for each student in the class.
2. Allow the students time to complete this worksheet on compound words and guide words.
3. Assist students as needed.

Learning Activity:

1. Students will practice separating compound words with a vertical line.
2. Students will locate the guide words (1 and 2) for 10 vocabulary words.

ENGLISH/SMALL ENGINE REPAIR

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Note: This can be done in pairs or groups of four.

Delivery of Content:

1. Provide a copy of "Dictionary Skills" for each student in the class.
2. Allow the students time to complete this worksheet on compound words and guide words.
3. Assist students as needed.

Learning Activity:

1. Students will practice separating compound words with a vertical line.
2. Students will locate the guide words (1 and 2) for 10 vocabulary words.

Evaluation:

The objectives will be achieved when the students are able to (1) define "compound words", (2) separate compound words, (3) use a dictionary to locate entry words, and (4) find the two guide words related to specific vocabulary.

ENGLISH/SMALL ENGINE REPAIR

DICTIONARY SKILLS

Directions: Use your dictionary to complete this worksheet.

I. Draw a vertical line separating the compound words.

a. camshaft
b. intake
c. crankcase
d. withstand
e. keyway
f. laborsaving
g. sparkplug
h. troubleshooting
i. equipment
j. leakage

II. List the guide words for the following entry words.

	Guide Word 1	Guide Word 2
a. cylinder		
b. friction		
c. bearing		
d. tapers		
e. exhaust		
f. piston		
g. valves		
h. rotary		
i. gear		
j. ignition		

ENGLISH/SMALL ENGINE REPAIR

KEY

I. Compound Words

a. cam shaft

b. in take

c. crank case

d. with stand

e. key way

f. labor saving

g. spark plug

h. trouble shooting

i. equip ment

j. leak age

II. Guide Words -- not listed as it will depend on dictionary used for assignment.

SMALL ENGINE REPAIR/ENGLISH

Lesson Topic:

1. Vocabulary Building -- Special
2. Dictionary Skills
3. Alphabetizing

Objectives and Essential Elements:

1. The students will be able to identify entry words that can be found between guide words 1 and 2.
2. The students will be able to alphabetize special vocabulary words.

Resources/Materials Required:

1. Poster board
2. Black markers

DIRECTIONS:
ACTIVITY ONE: Cut out rectangular pieces of poster board on which you have printed the 21 words: work, man, ship, fiber, glass, crank, shaft, up, stroke, work, able, counter, weights, fly, wheel, key, way, lock, washer, in, take.

ACTIVITY TWO AND THREE: Cut out rectangular pieces of poster board on which you have printed the 12 words: coal, crate, cam, compressor, coil, carburetor, crankcase, cycle, cranked, container, cooling, combustion.

Introduction (5 minutes):

1. Review what the students have done in their English class:
   a. Define compound words: two or more words put together to form a new word.
   b. Separate compound words into two separate words.
2. Explain that they will also be (1) separating compound words, and (2) using guide words. In addition, they will also be alphabetizing words.

Method:

Large group work

Delivery of Content:

1. Select volunteers to participate in the activities. Since there are three separate activities, all students will have a chance to participate at least once.
2. Follow the directions given under Learning Activity.

Learning Activity:

ACTIVITY ONE: SEPARATING COMPOUND WORDS

1. Pick 21 students and give each of them a poster board on which is written a word (one word of a compound word).
2. At a signal, let each of these students try to find the other part of their compound word.
3. At another signal, the students will stop to check their progress. As the students pair up, they can then sit down. Eventually, every student will be seated.
4. The teacher will have the individual pairs stand up and will then ask for an explanation of the meaning of the words. If none is given, the teacher will provide information about each of the words.

ACTIVITY TWO: USING GUIDE WORDS

1. Select 12 students to participate in this activity. The students will be given poster boards on which coal, crate, cam, compressor, coil, carburetor, crankcase, cycle, cranked, container, cooling, and combustion have been written.
2. The two students who have coal and crate will stand up in front of the class with coal (guide word 1) on the left, and crate (guide word 2) on the right.
3. The other students who have the words written on the poster boards will decide if their word can be found on the same page. If they can, they are to stand between the two guide words. If they cannot, they are to be seated.
4. The remaining students, with the help of the teacher, will decide if the students holding the words are correct.

ACTIVITY THREE: ALPHABETIZING

1. Select 12 different students to take the same 12 words in Activity Two.
2. They will line up in front of the class with the words written on poster boards and alphabetize themselves.
3. The remaining students, with the help of the teacher, will decide if the words are alphabetized correctly.

Evaluation:

From observation, the teacher will be able to ascertain whether the students do or do not understand the principles of dividing compound words, guide words, and alphabetizing. If the students seem confused, the Small Engine Repair teacher might suggest to the English teacher that the students need additional practice in these areas.

SMALL ENGINE REPAIR/ENGLISH

KEY

1. ACTIVITY ONE

Compound words should be:

workmanship
fiberglass
crankshaft
upstroke
workable
counterweights
flywheel
keyway
lockwasher
intake

2. ACTIVITY TWO

Words found between the guide words coal and crate:

compressor
coil
crankcase
cranked
container
cooling
combustion

3. ACTIVITY THREE

Alphabetical order of words:

cam
carburetor
coal
coil
combustion
compressor
container
cooling
crankcase
cranked
crate
cycle

ENGLISH/SMALL ENGINE REPAIR

Lesson Topic:

1. Reading Skills -- Detail
2. Making a List

Objectives and Essential Elements:

1. The students will be able to read a newspaper advertisement for details.
2. The students will make a list of information that is common to all advertisements.
3. Each student will plan an advertisement of his/her own.

Resources/Materials Required:

Individual copies of "Reading an Advertisement," page 123; Advertisement sample, page 125; and "Information Found in Advertisements," page 126.

Introduction (5 minutes):

Explain to the students that companies often advertise in newspapers, and on radio and television to increase their business. During this class period, they are going to read a newspaper advertisement and answer related questions.

Method:

Individual seat work and discussion

Delivery of Content:

1. Distribute copies of pages 123 through 126 to each student.
2. Allow students to read the advertisement and answer the questions.
3. Assist students as needed.
4. Conduct a class discussion.

Learning Activity:

1. After students have read the advertisement and answered the questions, conduct a discussion about what information is usually found in a newspaper advertisement.

2. Hand out copies of page 126, and let the students make a list of information that is usually found in most advertisements.

3. With the help of students, arrive at the conclusion that questions 1, 2, 3, 4, 5, 6, 8(kinds), 10(size), 11(color), 12(regular price), 14(sale price), 15(pictures), and 20(days of sale) include information that is commonly found in all advertisements.

4. The list that each student makes should be carried to their Small Engine Repair class at which time the teacher will conduct a cooperative lesson activity. This activity includes making a newspaper advertisement for a small engine repair company that the student owns.

5. In their Small Engine Repair class, they will plan an advertisement and return their plan to you so that you can check spelling, punctuation, etc. After you have approved each student's advertisement, he/she will return to his/her Small Engine Repair class and make a poster.

Evaluation:

The objectives will be reached when students are able to (1) read a newspaper advertisement, (2) successfully answer questions related to its content, (3) make a list of information that is found in most advertisements, and (4) plan an advertisement of his/her own.

ENGLISH/SMALL ENGINE REPAIR

READING AN ADVERTISEMENT

After reading the attached advertisement, answer the following questions.

1. What is the name of the company?__________________________
2. What is the company's street address?

   ____
3. In what town is this company located?______________________
4. a. What are the weekday hours?__________________________

   b. What are the weekend hours?__________________________
5. What is the company's telephone number? ____________________
6. Where is the company located according to the map?

   ____
7. How many 1 gallon landscape shrubs are available?_________
8. What kinds of fruit trees are available?

   ____
9. Who can get 25% off of these trees?________________________
10. What size of deco bark is available?_______________________
11. What colors of lava rock are available?____________________
12. What is the regular price of the 5-gallon shrubs?_________
13. a. What blooming plants are available?____________________

    b. In what size pots do these plant come?________________
14. What is the sale price of the topsoil?_____________________
15. How many items are pictured in the advertisement?_________
16. What items have the highest percentage off?

    ____

17. What is the name of the company which makes the marble?

____

18. What is the most expensive item according to the regular price?

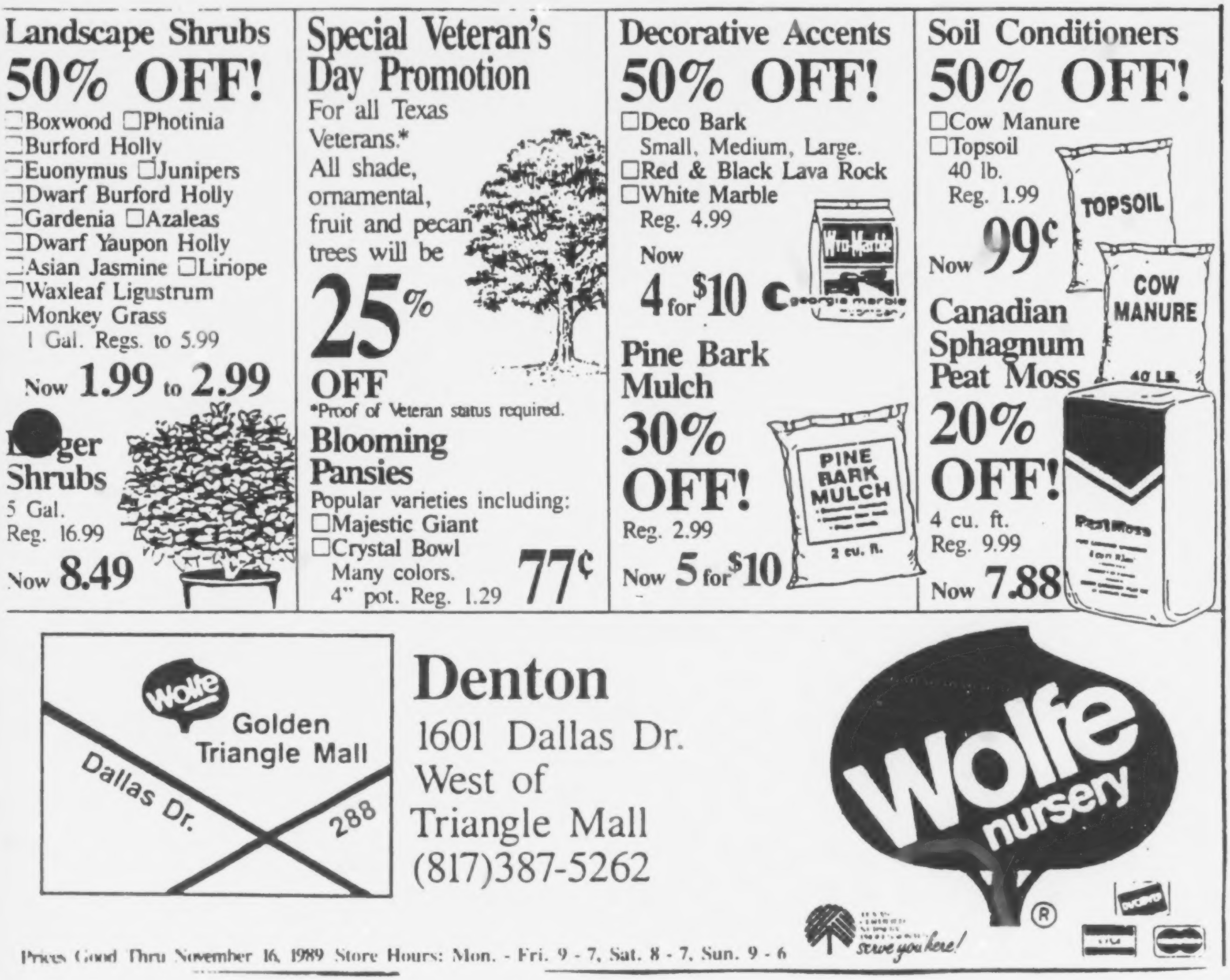
____

19. What is the least expensive item according to the sale price?

____

20. What was the final day of the sale?________________________

ADVERTISEMENT SAMPLE



Landscape Shrubs

50% OFF!

☐Boxwood ☐Photinia
☐Burford Holly
☐Euonymus ☐Junipers
☐Dwarf Burford Holly
☐Gardenia ☐Azaleas
☐Dwarf Yaupon Holly
☐Asian Jasmine ☐Liriope
☐Waxleaf Ligustrum
☐Monkey Grass

1 Gal. Regs. to 5.99

Now **1.99** to **2.99**

Larger Shrubs

5 Gal.
Reg. 16.99

Now **8.49**

Special Veteran's Day Promotion

For all Texas Veterans.* All shade, ornamental, fruit and pecan trees will be

25% OFF

*Proof of Veteran status required.

Blooming Pansies

Popular varieties including:
☐Majestic Giant
☐Crystal Bowl
Many colors.
4" pot. Reg. 1.29 **77¢**

Decorative Accents

50% OFF!

☐Deco Bark
Small, Medium, Large.
☐Red & Black Lava Rock
☐White Marble
Reg. 4.99

Now
4 for $10

Pine Bark Mulch

30% OFF!

Reg. 2.99

Now **5 for $10**

Soil Conditioners

50% OFF!

☐Cow Manure
☐Topsoil
40 lb.
Reg. 1.99

Now **99¢**

Canadian Sphagnum Peat Moss

20% OFF!

4 cu. ft.
Reg. 9.99

Now **7.88**

Denton

1601 Dallas Dr.
West of
Triangle Mall
(817)387-5262

Prices Good Thru November 16, 1989 Store Hours: Mon. - Fri. 9 - 7, Sat. 8 - 7, Sun. 9 - 6

ENGLISH/SMALL ENGINE REPAIR

INFORMATION FOUND IN ADVERTISEMENTS

Directions: Make a list of information that is usually found in all advertisements. Take this list with you to your Small Engine Repair class.

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________
11. ____________________
12. ____________________
13. ____________________
14. ____________________
15. ____________________

ENGLISH/SMALL ENGINE REPAIR

KEY

1. Wolfe Nursery
2. 1601 Dallas Drive
3. Denton
4. a. Monday-Friday 9-7
   b. Saturday 8-7, and Sunday 9-6
5. (817)387-5262
6. west of the Triangle Mall
7. 13
8. 4 (shade, ornamental, fruit, pecan)
9. all veterans
10. small, medium, large
11. red, black
12. $16.99
13. a. pansies
    b. 4"
14. $.99
15. 7
16. shrubs, decorative accents, soil conditioners
17. Georgia Marble
18. larger shrubs
19. blooming pansies
20. November 16, 1989

SMALL ENGINE REPAIR/ENGLISH

Lesson Topic:

1. Writing For a Variety of Purposes
2. Advertisements
3. Summarizing

Objectives and Essential Elements:

The students will be able to make an advertisement for his/her company.

Resources/Materials Required:

1. List of information found in most advertisements. This list will have been compiled in English class and will be brought from there to you ("Information Found in Advertisements," page 130).
2. Individual copies of "Writing an Advertisement, page 131
3. Poster board and/or butcher paper for each student
4. Colored pencils, markers, erasers, rulers, scissors
5. Old catalogues with pictures of small engine items

Introduction (5 minutes):

1. Review what was done in the English class. This includes reading an advertisement, answering questions and making a list of information that is found in most advertisements.
2. Explain that in this class they will be making an advertisement of their own.

Method:

Brief discussion and hands-on (designing and drawing of advertisement).

Delivery of Content:

1. Make sure each student has their list of common information that they compiled in English class. Review the information found on this list.
2. Distribute copies of page 131, which is an explanation of what they are going to do.
3. Assist the students in naming their company and planning their advertisement as needed.
4. Can be done in pairs or groups of four.

Learning Activity:

1. Students will name their company and plan their advertisement. They will make a draft of their advertisement, which the English teacher will check for spelling, punctuation, and content errors.
2. Once the draft has been checked and approved, each student will then make an advertisement using poster board or butcher paper.
3. When all the advertisements are completed, display them around the room and allow each student to explain what they have done.
4. If appropriate, make this a contest in which another teacher (i.e., art) awards ribbons to the first, second, and third prize winners. Make sure that the students know how the posters will be judged (creativity, neatness, color, etc.) before they display their advertisements.
5. Display posters in a school display case.

Evaluation:

The objectives will be achieved when students have completed an advertisement that contains all the necessary information.

SMALL ENGINE REPAIR/ENGLISH

INFORMATION FOUND IN ADVERTISEMENTS

Directions: Make a list of information that is usually found in all advertisements. Take this list with you to your Small Engine Repair class.

1. Company name:____
2. Company's street address:_______________________________
3. Town:____
4. Weekday hours:____
5. Weekend hours:____
6. Company's telephone number:_____________________________
7. Map:____
8. Kind of items available:________________________________
9. Size of items available:________________________________
10. Colors of items available:______________________________
11. Regular price:____
12. Sale price:____
13. Pictures:____
14. Days of sale:____

SMALL ENGINE REPAIR/ENGLISH

WRITING AN ADVERTISEMENT

Situation:

You are the owner of a successful small engine sales and service business. You are going to place a classified advertisement in the local newspaper.

Directions:

1. Decide on the name of your company.
2. Decide what item(s) you plan to advertise.
3. In your English class you made a list of information that is usually found in all advertisements. Use this list to plan an advertisement for your company.
4. When you have made a draft of your advertisement, take it to your English teacher so that she/he can check for spelling, punctuation, and content errors.
5. After the English teacher has checked and approved your advertisement, return to your Small Engine Repair class and make the advertisement using materials provided by your teacher.
6. Be able to summarize to the class what you have done.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

Unit Objective:

Upon completion of this unit, the learner will be able to demonstrate his/her knowledge of the Constitutional Convention. Mastery of this unit will be determined by the instructor.

Definition of Terms:

Constitutional Convention -- meeting in 1787 of the founding fathers who wrote the most important ruling document in U.S. history.

Enabling Objectives:

The enabling objectives will be the same for all the days with the exception of the appropriate differences for that particular day, which will be noted at the beginning of each activity.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

Unit Overview:

One great way to incorporate two outstanding subjects like American History and Business Office Services is through using a game called "1787: A Simulation." This is a simulation activity reenacting the events of the Constitutional Convention. The students role-play the actual convention through sixteen fictional delegates and three real-life roles, George Washington, the chairman; James Madison, the secretary; and Benjamin Franklin. The final production of this activity is a class constitution. Business Office Services will be discussing democracy, entrepreneurship, working relationships, group membership, and laying out and printing the history class final constitution.

Game Overview:
1787: A Simulation

There are five combined activities over this unit. We will be using the game over and over in these activities. Anyone could incorporate these activities into their own unit over the Constitutional Convention and Constitution.

"1787: A Simulation," provides exciting and significant classroom learning experiences. Each student plays fictional delegates to a mock Constitutional Convention. Each person represents a set of political viewpoints which were vital in the early days of the United States. These interests will conflict, at times, with the other delegates. They propose and vote on many different ways of structuring a new government, much like our early founding fathers had to do. Finally, they vote on ratification of their document. The class constitution is compared with the actual Constitution.

Game Materials:

* 33 1/3 rpm record with three audio presentations:
  - Introduction to 1787, which explains the game to students
  - The Delegates Arrive, a radio interview and commentary
  - Franklin's Plea for Unanimity

* Delegate profile cards
* Delegate handbooks
* Duplicating masters:
  - Newspapers with headlines
  - Newspaper, blank
  - Voting record form
  - New proposal form

* Wall chart with agenda and delegates listed under the eight possible positions on the issues

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

The Pattern of the Game:

The divisions of public opinion during the time the federal government functioned under the Articles of Confederation are summarized in four conflicting sets of interests.

1. Strong central government vs. weak central government
2. Landowners vs. investors, shippers and businessmen with liquid assets
3. Northern states vs. Southern states
4. Large states vs. small states

Several delegates to the convention might agree on one issue, but for different reasons, and might disagree on one, two, or all three of the other issues.

Sixteen different combinations of views are possible. For example, a delegate who is a landowner from a small southern state may favor strong central government.

The Players of the Game:

There are sixteen fictional delegates to the mock convention, each representing a different combination of views on the four issues. A chart of the names and "bundles of interests" of the delegates is attached to this unit.

Three students play the roles of real people: Washington, the chairman; Madison, the note-taker, who acts as secretary; and Franklin, the wise old mediator. A fourth student is a journalist, which is optional. Thomas Grant is the journalist who reports each day's events and decisions.

Depending on the class size, a delegation may consist of one or more students.

The teacher's role is that of resource and advisor.

Playing the Game:

The agenda lists seven articles under which students may plan how the government established by their constitution shall work. Under each heading, possible alternatives are suggested briefly.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

Playing the Game (cont.)

A delegate may move adoption of any alternative shown on the agenda, by simple motion. Delegates may propose other alternatives by filing a New Proposal Form which is attached to this unit.

Brief formal speeches may be prepared to introduce or support proposals. Discussion and debate may take place in formal sessions of the convention and in informal person-to-person conversation. Enlisting support for proposals, bargaining, modifying, and compromising will almost certainly take place during informal periods, both in and out of class.

Adoption or rejection of a proposal is by simple majority vote of the delegates present. A tie vote means rejection of a proposal. Washington, Madison, Franklin, and the journalist, Thomas Grant, do not vote.

When all topics to be considered have been acted upon, a vote is taken on the entire constitution constructed by the students.

Game Objective:

1. Students learn, through personal involvement, the conflicting interests which had to be reconciled in framing the Constitution.

2. Students are forced to practice the arts of bargaining and compromise to achieve as many of their own goals as possible, and to create a document which will be accepted by the whole group.

3. Students understand that the resulting structure of federal government must accommodate as many different interests and viewpoints as possible.

4. Students bring contemporary understanding to their study of the United States Constitution.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

Unit Description:

The game "1787: A Simulation" is divided into seven articles. The game may be modified into three days or two weeks, which is left up to the teacher. The articles for discussion and voting are the legislative branch, powers of the legislature, powers denied the states, executive branch, powers of the executive branch, courts, and ratification of the Constitution. The teacher may choose either to expand on any of the seven articles or to delete one. The following is an outline of the unit's lessons by weeks.

Monday: (1st day)	Review of Constitutional Convention using attached worksheet. Brief students on the game "1787: A Simulation." Give them introduction, "We are about to start writing our own Constitution. In order to understand the process of conventions, especially the Constitutional Convention, we will play the game called '1787: A Simulation'. The Business Office Services will be assisting us and discussing many of the same topics we will be doing during this activity. They will type and print our final Constitution."
Tuesday: (2nd day)	Students receive their convention role (list of the delegates is attached to this unit). They will receive a class roster in the order that everyone will be called on by their convention name. Discussion of the rules of the Convention are listed below: a. Each delegate has one vote (if more than one person plays a delegate, they must decide how to cast their vote). b. Each proposal must receive a majority of all votes cast to become a draft for the Constitution. c. New proposals may be brought before the Convention by using the New Proposal Form (see attached sheet). d. Must be recognized by George Washington in order to speak before the Convention. e. Any other rules determined by the teacher. Listen to the record "Introduction to 1787" and do Convention Vocabulary for homework.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

* In Business Office Services, you will discuss the Democratic Society. You will see from the Convention how important each person's vote is to our government.

Wednesday:
(3rd day)

Vocabulary is taken up.
Agendas are handed out.
Agendas are discussed.
Journals are handed out (see sample journal attached to this unit).
Problems with delegates are discussed.
Rules are reviewed.
Teacher may grade each day for participation.

Thursday:
(4th day)

First day of Convention proceedings
Article 1 is discussed.
Legislative Branch --

a. number of houses
b. how the members are to be chosen
c. how states are represented
d. how long are the terms of office

All notes are taken by Madison; each student keeps personal records in their journal.

* In our Convention, we are forming a new government for the country. In Business Office Services, you are studying entrepreneurship. The kind of government a country has determines what kind of economic system it will have.

Friday:
(5th day)

Madison reads minutes of yesterday's convention. Second day of Convention proceedings.
Article 2 discussed.
Powers of the Legislative Branch --

a. taxation
b. commerce
c. military
d. slavery

Give students a few minutes at the end of the period to write down any comments in their journal.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

Any of the above or below topics on the agenda may extend past the time limit of a class period. You may wish to give a time limit for each discussion. You could also limit discussions on a subject to three.

Monday:
(6th day)

Madison reads minutes of yesterday's convention.
Article 3 is discussed.
Powers Denied the States --

a. treaties
b. coin money
c. impair obligation of contracts
d. export, import duties

Students write in journals.
Journals may be taken up and graded by the teacher.

* Working in groups and being part of a group is vital to our Convention's success.

Tuesday:
(7th day)

Madison reads minutes of yesterday's convention.
Journals are handed back.
Articles 4 & 5 are discussed.
Executive Branch --

a. one or more
b. election of executives
c. terms

Powers of the Executive Branch --

a. military
b. treaties
c. impeachment
d. veto
e. pardon

Journals are summarized for that day.
Teacher may grade on participation throughout this unit of study.

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

Wednesday:
(8th day)

Madison reads minutes of yesterday's convention.
Articles 6 & 7 are discussed.
Courts --

a. selected by
b. judicial review
c. length of term

Ratification of the Constitution --

a. who
b. how

Journals are taken up and graded.
Preliminary draft of Constitution is drawn up, which is sent to the Business Office Services.

* The importance of George Washington, James Madison, and Benjamin Franklin as leaders in our Convention was crucial to its success. Business Office Services classes are learning the traits of an effective leader. The proceedings of the Convention are run much like the rules of a club.

Thursday:
(9th day)

Draft of Constitution is received.
Students sign their class Constitution.
Teacher runs off copies.
Students compare their Constitution to the actual Constitution.
Review for test over the Constitutional Convention and the Constitution.

Friday:
(10th day)

Test over the Constitutional Convention and the Constitution.

CONSTITUTIONAL CONVENTION
Review

A. Constitutional Convention meets.

1. Date
2. Place
3. Number of states attending
    a. Number of delegates altogether
    b. Number of delegates present at most meetings
    c. Type of men attending
4. Purpose
5. Outstanding men of the Convention
    a. George Washington
    b. Benjamin Franklin
    c. James Madison
    d. Governor Morris
    e. Alexander Hamilton
    f. James Wilson

B. The work of the Convention begins.

1.
2.
3. Rules of the Convention
    a.
    b.
    c.
    d.
4. Purpose of the Convention

C. The Constitution is written.

1. Federal system is chosen
    a.
    b.
    c.
2. Basic plan of government is accepted
    a. Proposed by
    b. Name
    c. Definition
3. Government is made up of three branches
    a.
    b.
    c.

CONSTITUTIONAL CONVENTION
Answers for Review

A.
1. 1787
2. Philadelphia
3. 12
   a. 55
   b. 35
   c. Professional, well educated, the best the country had to offer, two-thirds were college graduates
4. To review the Articles of Confederation
5. a. Chairman of the Convention
   b. Peacemaker of the Convention
   c. Father of the Constitution
   d. Responsible for the actual wording of the Constitution
   e. Believed in a strong central government
   f. Believed in the right of the people to vote for their leaders

B.
1. Chairman is named
2. Committee to set the rules
3. a. Each state gets one vote
   b. Seven states present makes a quorum
   c. Must be addressed by the chairman to speak
   d. Must give speaker their full attention
4. To write a completely new constitution

C.
1. a. Division of government between the states and the national government
   b. The national government makes laws for the good of all the people in the states
   c. The states make laws for that state
2. a. James Madison
   b. Republic
   c. Where citizens elect representatives to make and enforce the laws
3. a. Legislative
   b. Executive
   c. Judicial

CONSTITUTIONAL CONVENTION
Vocabulary

1. legislative
2. represent
3. executive
4. commerce
5. military
6. interstate
7. intrastate
8. slavery
9. treaty
10. coin
11. impair
12. export
13. import
14. executive
15. election
16. declare
17. impeachment
18. veto
19. pardon
20. judicial review
21. ratification
22. agenda
23. majority
24. unanimous

CONSTITUTIONAL CONVENTION
Delegates

1. George Washington
2. James Madison
3. Benjamin Franklin
4. Thomas Grant
5. Dobbs Strong
6. Roger Ellsworth
7. Randolph Few
8. Patterson Pierce
9. Oliver Barton
10. Clymer Fitzsimmons
11. Martin Mercer
12. McHenry Wilson
13. Sherman Butler
14. Rufus Corbett
15. Jefferson Randolph
16. Livingston Yates
17. Cotesworth Mifflin
18. Franklin Morris
19. Mason Wythe
20. Gerry Gorham

CONSTITUTIONAL CONVENTION
Agenda

1. Legislative Branch
   a. number of houses: one, two
   b. members chosen by: people, state legislature, state or federal executive
   c. represent: states, number of people
   d. term of office: one, two, three, four, six, more years

2. Powers of Legislature
   a. taxation: yes, no; import, export
   b. commerce: yes, no; interstate commerce only; intrastate
   c. military: declare war; raise an army, navy, call out the state's militia
   d. slavery: regulate or not

3. Powers Denied the States
   a. treaties: yes, no
   b. coin money: yes, no
   c. impair obligations of contracts: yes, no
   d. export, import duties: yes, no

4. Executive
   a. number: one or more
   b. election: people directly, state legislatures, federal legislature, other
   c. term: one, two, three, four, five, six, more years

5. Powers of the Executive
   a. military: declare war, commander-in-chief
   b. treaties: alone, with legislature, submit to people, submit to legislature
   c. impeachment: legislature, people, courts; simple majority, two-thirds
   d. veto: yes, no, legislature override
   e. pardon: yes, no, who

6. Courts
   a. selection by: executive, legislature, people
   b. judicial review of legislative and executive acts: yes, no
   c. length of term: one, two, three, four, five, six, more years

7. Ratification of Constitution
   a. who: people, states
   b. how: simple majority, two-thirds, unanimous

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION
Voting Record

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total Yes	 No
Proposal 1																		
Proposal 2																		
Proposal 3																		
Proposal 4																		
Proposal 5																		
Proposal 6																		
Proposal 7																		
Proposal 8																		
Proposal 9																		
Proposal 10																		
Proposal 11																		
Proposal 12																		
Proposal 13																		
Proposal 14																		

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

STUDENT'S JOURNAL FOR THE CONVENTION
Sample

Day 1, 1787

Legislative Branch --
  a. number of houses:
  b. members chosen by:
  c. represent:
  d. term of office:

Comments: (how the voting went that day for them)

Day 2, 1787

Powers of Legislature --
  a. taxation: (import or export)
  b. commerce: (interstate or intrastate)
  c. military:
  d. slavery:

Comments: (give any personal feelings)

Day 3, 1787

Powers denied the States
  a. treaties:
  b. coin money:
  c. impair obligation of contracts:
  d. export, import duties:

Comments: (same as either of the above)

Day 4, 1787

Executive --
  a. number:
  b. election of executive:
  c. term of executive:

Comments:

STUDENT'S JOURNAL FOR THE CONVENTION
Sample

(Continued)

Day 5, 1787

Powers of the Executive --
- a. military: (declare war, commander-in-chief)
- b. treaties:
- c. impeachment:
- d. veto:
- e. pardon:

Comments:

Day 6, 1787

Courts --
- a. selection by:
- b. judicial review of legislative and executive acts:
- c. length of term:

Comments:

Day 7, 1787

Ratification of Constitution
- a. who:
- b. how:

Comments: (give personal viewpoint of Convention)

NOTE: The 1787: A Simulation may be ordered from:

Clearvue, Inc.
6465 North Avondale Avenue
Chicago, IL 60631

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION
New Proposal Form

Delegation **Aspect of Constitution**

We hereby respectfully submit the following proposal to this Convention:

It is proposed that

Purpose in making this proposal:

Signature

Signatures of three other delegates who support this proposal:

Three signatures are needed for valid submission to the secretary.

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CONSTITUTIONAL CONVENTION

The Philadelphia Argus

Published three times each week.

Sold for one penny per copy.

DELEGATES ARRIVE FROM ALL STATES:

QUICK CONCLUSION FORECAST BY OBSERVERS

POWERS OF STATES, CONGRESS, SEEN AS BIG ISSUE

DELEGATES DIFFER ON HOW TO ELECT PRESIDENT, SENATE

Crowd greets delegates. Music, fireworks, holiday spirit in all parts of City

Heat, roads two of delegates' problems

Cost of Convention sore point to some here

CONSTITUTIONAL CONVENTION

GEORGE WASHINGTON

George Washington, now fifty-five years old, journeys here from his home in Mt. Vernon, persuaded by James Madison to come out of retirement and serve as chairman of the Convention. For the moment, he has put aside the life he most enjoys-that of a country squire. He has had little time, except for the past several years, to live and work on his estate.

At sixteen he surveyed the wilderness of the Shenandoah Valley. At twenty-three, as a British officer, he was in command of all the Virginia forces in the struggle with France for control of the frontier. Later he served as a member of the Virginia Assembly, then commanded the Continental Army. A lesser man could not have withstood the hardships and defeats of the fall and winter of 1777. Washington's faith and strength of purpose held his ragged troops together and carried them through to the victorious siege of Yorktown. Impelled not only by Madison, but by his own distress over the weakness of the central government, he will lend the prestige of his name and stature to this convention.

He has written Madison, "My wish that the convention... probe the defects of the Constitution to the bottom and provide radical cures, whether they are agreed to or not."

CONSTITUTIONAL CONVENTION

JAMES MADISON

James Madison, thirty-seven years old, slight of build and intelligent, a reflective young man of a modest nature, has been instrumental in bringing George Washington out of retirement to act as chairman of the Convention. Madison, who will serve as Secretary to the Convention, possesses a fine mind and fully understands the importance of the roles to be played by the delegates. He comes to Philadelphia convinced that the convention "would decide the fate of the republican government in the whole world."

Madison is a blend of profound politician and scholar. Although without great distinction on the battlefield, he has served in the Continental Congress and the Virginia Assembly, assisting in the framing of the constitution of that state. This spring, he joins the assemblage in Philadelphia, to help in forming a new Constitution and a stronger national government.

BENJAMIN FRANKLIN

Dr. Franklin, in this year of 1787, is eighty-two years of age, and known as the greatest philosopher of these times. He comes to the Convention with a rich and varied background of service to this country as a journalist, man of business, scientist, political philosopher, writer, diplomat, educator, administrator, and humorist. His knowledge and extensive worldly experience has brought him the respect of his colleagues. His presence will add prestige to convention decisions.

Major William Pierce, a delegate from Georgia, wrote of Franklin's ability, "It is certain that he does not shine much in public council-he is no speaker, nor does he seem to let politics engage his attention. He is, however, a most extraordinary man, and tells a story in a style more engaging than anything I have ever heard..."

Franklin's presence on the convention floor will insure agreement on many issues that otherwise might end in deadlock.

CONSTITUTIONAL CONVENTION

THOMAS GRANT, Journalist

Tom Grant, like other lads of sixteen, ran away from home in 1776 to serve on the Continental Army, He was with Washington's troops at Valley Forge. A slight limp - he lost two toes from frost bite --serves to remind him of that long, hard winter. But his time in the hospital changed his life. An officer in the next bed, in more peaceful times a professor of English, taught Tom to read, as a means of whiling away the time. Tom was an apt pupil. His first primer was the only book the professor had with him: Thomas Paine's *Common Sense.* Grant continued his own education when he was mustered out of the army. In the last ten years he has travelled and spent time in every state in the Union, making his living as a journalist.

He comes to Philadelphia aware that many of the most influential men of the period will be gathering there for the convention. Through the good offices of Dr. Franklin, who has followed the young man's journalistic career, he has obtained permission to sit in and report upon the convention

CONSTITUTIONAL CONVENTION

DOBBS STRONG

INTERESTS	Size of state:	Small
	Type of capital:	Landed
	Region:	Southern
	Government:	Strong

Dobbs Strong is one of the first "self-made men" of his time. He has had little formal education, but has read extensively.

By the age of eighteen, Strong set out to make his mark in his state. Working as an overseer on small plantations, he soon saved enough money to begin buying land of his own, and by 1775, he owned half the land in his state. Rather than operating large-scale and exclusively slave plantations, Strong invested in smaller farms operated by indentured servants. He ships a great deal of cotton to Europe. His economic interests are threatened not only by unstable currency, but also by constant Indian raids, which threaten the very existence of his interests and his state.

Strong comes to Philadelphia, therefore, convinced that a strong central government is needed, but one whose strength is limited to maintaining a strong army, bringing about a stable and uniform currency, protecting slavery, and prohibiting export taxes.

CONSTITUTIONAL CONVENTION

ROGER ELLSWORTH

INTERESTS	Size of state:	Small
	Type of capital:	Liquid
	Region:	Northern
	Government:	Strong

Roger Ellsworth was trained for the ministry, but abandoned his plans and entered politics when he saw the poor economic and political plight of his state.

Ellsworth is convinced that his state needs more land to prosper. He wants a strong government, which could force the larger states to give up some of their land.

Ellsworth's devout religious beliefs also make him an outspoken opponent of slavery. He comes to Philadelphia determined to fight for a strong central government, to get more land for his state, and to abolish slavery.

CONSTITUTIONAL CONVENTION

RANDOLPH FEW

INTERESTS	Size of state:	Small
	Type of capital:	Liquid
	Region:	Southern
	Government:	Strong

Randolph Few was educated at home by his parents, and obtained a law degree by self-study. He soon lost interest in law, however, and began a new career on the shipping industry of his state. He occasionally engaged in slave trade, and acquired some of his substantial financial assets that way.

Few did not become interested in politics until the weaknesses of the Articles of the Confederation convinced him that only a strong central government, which would control the printing of money, could provide a uniform currency to protect his interests and those of his class. He also hopes that a strong central government will provide for a more equitable distribution of land, which is necessary to give his small state increasing power.

CONSTITUTIONAL CONVENTION

PATTERSON PIERCE

INTERESTS

Size of state: Small

Type of capital: Landed

Region: Northern

Government: Strong

Patterson Pierce was born to wealth and educated in England in the study of law. After his return from his studies abroad, Pierce decided that the economic survival of his state depended upon the acquisition of more land, and that political survival depended upon a strong central government to protect Pierce and his class from the increasing restlessness of the masses.

Pierce is forever preaching that man's instincts can never be trusted, that only a strong central government offers security.

Pierce and his class are gladly willing to trade less representation in the legislature for more protection of property rights.

OLIVER BARTON

INTERESTS	Size of state:	Small
	Type of capital:	Liquid
	Region:	Southern
	Government:	Weak

Oliver Barton comes from a frontier state. His substantial wealth came from the inheritance of large cash assets, which he invested wisely.

Barton, like most of the people in his state, is extremely provincial in his outlook, having had little contact with foreigners outside of the slave trade. He has had even less contact with citizens outside his state.

His lack of contact with the outside world and the relative wealth of his state have convinced Barton that things have gone splendidly after independence from Britain. Neither he nor the ruling class of his state sees any need to create stronger central government, which they believe is bound to give the larger states more power.

CONSTITUTIONAL CONVENTION

CLYMER FITZSIMMONS

INTERESTS	Size of state:	Small
	Type of capital:	Landed
	Region:	Northern
	Government:	Weak

Clymer Fitzsimmons is a Northern frontiersman, living in a sparsely populated state. He is self-educated and has always had an interest in the workings of government throughout history. His studies convinced him at an early age that government exists solely to suppress people.

Economically, Fitzsimmons is quite well-to-do, ranking among the richest in a state of farmers. Government under the Articles of Confederation has seen Fitzsimmons' state affected little one way or the other economically, and his people are basically satisfied with their economic situation.

Politically, the people in Fitzsimmons' state are more than happy to have equal representation in the Congress, and they are not about to trade that in for anything else.

Fitzsimmons, with his own suspicions of strong government and the need to protect his states' interests, will fight against stronger central government.

CONSTITUTIONAL CONVENTION

MARTIN MERCER

INTERESTS
Size of state: Small
Type of capital: Landed
Region: Southern
Government: Weak

Martin Mercer was educated in the Catholic tradition, and though an owner of eight slaves and a small plantation, became an opponent of slavery at an early age. Actually, in his state, slavery and plantation life are relatively unimportant, since most of the people are engaged in small farming. On a visit to Massachusetts he was befriended by Sam Adams and soon adopted much of Adams' radical philosophy, including his views on the dangers of strong government.

Mercer's state stands to lose from a stronger central government that could impose taxes. The people in his state are self-sufficient and quite content with their status. Mercer's views on government, coupled with his persuasiveness and influence, convinced most of the people of his state that he should come to Philadelphia to block creation of a stronger central government.

CONSTITUTIONAL CONVENTION

MCHENRY WILSON

INTERESTS	Size of state:	Small
	Type of capital:	Liquid
	Region:	Northern
	Government:	Weak

McHenry Wilson was trained for the ministry on the Congregational Church. He is a man of moderate but comfortable means. Most of his investments are in shipping.

Under the Articles of Confederation, foreign goods gravitated to his low tariff state, and his people make more than an adequate living by trade.

Wilson's economic interests and his absolute conviction that his state must have the same representation as a large state, make him an outspoken opponent of a strong central government.

He comes to Philadelphia, therefore, without a doubt as to what he and his state want and need: just what they have already.

CONSTITUTIONAL CONVENTION

SHERMAN BUTLER

INTERESTS	Size of state:	Large
	Type of capital:	Landed
	Region:	Southern
	Government:	Strong

Sherman Butler was educated in Southern colonial style and studied law at William and Mary College. After graduation, he practiced law and made a great deal of money. He invested most of it in large plantations, and within ten years, he owned more than 80 slaves.

Butler entered local politics in the 1750's and quickly rose to prominence. By 1776, he was one of the two or three more powerful men in the state, and since 1784, he probably has been the most powerful.

He comes to Philadelphia with some doubts about the results of the convention. However, he is willing to support a stronger central government so his state's interests can be protected. Those interests are the continued existence of slavery, no taxes on export shipments of cotton to Europe, and no taxes on imports to this country of European manufactured goods.

CONSTITUTIONAL CONVENTION

RUFUS CORBETT

INTERESTS	Size of state:	Small
	Type of capital:	Liquid
	Region:	Northern
	Government:	Strong

Rufus Corbett was born to shipping wealth, educated at Harvard, and is one of the richest men in his state.

During the Revolution and the period of the Articles of Confederation, he has increased his fortune by buying government bonds at a discount from people who needed cash. Constant inflation during this period, however, has convinced Corbett that only a stable currency can protect his interests and those of his class.

Corbett comes to Philadelphia to fight for a stronger central government, able to create a uniform currency and to negotiate enforceable trade agreements.

Corbett comes to the convention with the full blessings of his people to achieve these objectives.

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION

JEFFERSON RANDOLPH

INTERESTS	Size of state:	Large
	Type of capital:	Liquid
	Region:	Southern
	Government:	Strong

Jefferson Randolph was educated in England and returned to the colonies upon receipt of his medical degree. On his return, however, Randolph found medicine unsuited to his temperament. He took advantage of being the son of extremely wealthy parents and from age 21 to 33 did not go to work. He spent most of this time reading the world's political theorists. With that knowledge he has become one of the most respected men in his state, and constantly is consulted for advice on political matters.

Since his political philosophy matches the economic interests of his state, Randolph was elected a delegate to the Constitutional Convention. He has made speech after speech arguing for a strong central government, to protect private property, and to have the government prevent the masses and unpropertied from gaining control.

LIVINGSTON YATES

INTERESTS	Size of state:	Large
	Type of capital:	Landed
	Region:	Northern
	Government:	Strong

Livingston Yates was educated at Kings College, studied law, owned enormous tracts of land, entered politics, and became a political power by the year 1786.

Yates was convinced that his state, with its large population, was short-changed by the Congress under the Articles of Confederation. He also believes that a stable currency is absolutely essential to bring economic stability to his state.

Politically, Yates believes that men are not to by trusted. Shay's Rebellion convinced him that anarchy would infiltrate the various states unless a government with strong overall powers is created immediately.

Yates comes to Philadelphia with a firm commitment to the strongest possible central government, and threatens to go it alone if this is not accomplished.

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION

COTESWORTH MIFFLIN

INTERESTS	Size of state:	Large
	Type of capital:	Liquid
	Region:	Southern
	Government:	Weak

Cotesworth Mifflin was born to extreme wealth, educated at home by private tutors, and entered local politics at a very early age.

Mifflin soon rose to the top of his state in politics. Because of what he saw on an extended trip to Europe, he became obsessed with the tyranny of government. He corresponded with Samuel Adams, Richard Henry Lee, Patrick Henry, and Thomas Jefferson, and is convinced that strong central government is, and has been, the curse of mankind throughout history.

Under the Articles of Confederation, Mifflin and his state prospered enormously, and few of the leading figures of his state want any part of a stronger central government. In fact, most of the ruling class are fiercely opposed to any form of strong central government.

Mifflin comes to Philadelphia only to block the emergence of a stronger central government.

CONSTITUTIONAL CONVENTION

FRANKLIN MORRIS

INTERESTS	Size of state:	Large
	Type of capital:	Landed
	Region:	Northern
	Government:	Weak

Franklin Morris was educated at Harvard, where he developed a close friendship with John Hancock. He entered politics upon completion of his education, and by 1785, owned almost half the land in his state.

Morris' state has prospered because the state legislature has been able to maintain a stable currency. From an economic point of view, Morris and his people have nothing to gain by a national currency.

He sees the desire to create a strong central government as a plot to take land from large states such as his, and no one is going to convince him otherwise. Furthermore, Morris believes that all governments that are given too much power tend to abuse it in the end, and he comes to Philadelphia with instructions not to compromise on even the smallest of matters.

CONSTITUTIONAL CONVENTION

MASON WYTHE

INTERESTS	Size of state:	Large
	Type of capital:	Landed
	Region:	Southern
	Government:	Weak

Mason Wythe was educated as a Southern aristocrat, studying politics and overseeing his three plantations and 65 slaves in his spare time.

Wythe quickly rose to political prominence in his state, becoming Governor after the Revolution. As Governor, he continued to increase the wealth and power of his economic class in the state.

Government under the Articles of Confederation has affected Wythe's state little one way or the other, as the local currency has been stable, and the "haves" continued to prosper.

Wythe's study of politics and the economic wealth of his state have convinced him that a stronger central government is bound to hurt his state, since in a strong union Wythe's state will have to give up far more than it ever can hope to gain.

Wythe comes to Philadelphia determined to fight for continuation of the Articles of Confederation.

CONSTITUTIONAL CONVENTION

GERRY GORHAM

INTERESTS	Size of state:	Large
	Type of capital:	Liquid
	Region:	Northern
	Government:	Weak

Gerry Gorham is probably the richest man in his state. He is the holder of vast sums of money and owner of the state's largest shipping business. Gorham draws heavily on his experience with British occupation to condemn the vices of strong government and to be content with the virtues of a weak government.

The ruling class of Gorham's state has prospered economically under the Articles of Confederation. They have trade agreements with England and Spain. The last thing he and his friends want is a stronger central government. Whenever the question of strong government comes up, Gorham recites the British abuses he remembers.

Gorham comes to Philadelphia committed to the Articles of Confederation.

CONSTITUTIONAL CONVENTION
Chart of Delegates' Interests

DOBBS **STRONG** 1 small southern strong landed	**ROGER** **ELLSWORTH** 2 small northern strong liquid	**RANDOLPH** **FEW** 3 small southern strong liquid	**PATTERSON** **PIERCE** 4 small northern strong landed
OLIVER **BARTON** 5 small southern weak liquid	**CLYMER** **FITZSIMMONS** 6 small northern weak landed	**MARTIN** **MERCER** 7 small southern weak landed	**McHENRY** **WILSON** 8 small northern weak liquid
SHERMAN **BUTLER** 9 large southern strong landed	**RUFUS** **CORBETT** 10 large northern strong liquid	**JEFFERSON** **RANDOLPH** 11 large southern strong liquid	**LIVINGSTON** **YATES** 12 large northern strong landed
COTESWORTH **MIFFLIN** 13 large southern weak liquid	**FRANKLIN** **MORRIS** 14 large northern weak landed	**MASON** **WYTHE** 15 large southern weak landed	**GERRY** **GORHAM** 16 large northern weak liquid

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION AND CONSTITUTION TEST

I. Multiple Choice

____ 1. The preamble to the Constitution begins this way --

(a) "Four score and seven years ago . . ."
(b) "When, in the course of human events, . . ."
(c) "We, the people of the United States, . . ."
(d) "We hold these truths to be self-evident . . ."

____ 2. Our national government is divided into ____ branches.

(a) two
(b) four
(c) three
(d) five

____ 3. Congress is divided into ____ parts.

(a) two
(b) three
(c) four
(d) ten

____ 4. The Constitution is divided into ____ main parts, or articles.

(a) twenty-six
(b) seven
(c) ten
(d) seventeen

____ 5. ____ amendments have been added to our Constitution.

(a) Ten
(b) Seven
(c) Twenty-six
(d) Three

____ 6. Who was chairman of the Constitutional Convention?

(a) James Madison
(b) Thomas Jefferson
(c) Benjamin Franklin
(d) George Washington

____ 7. Which of these men kept detailed notes that provides us with most of our knowledge?

(a) Alexander Hamilton
(b) James Madison
(c) Governor Morris
(d) George Washington

____ 8. When did the Constitutional Convention meet?

(a) 1787
(b) 1781
(c) 1776
(d) 1789

____ 9. Who was called the "Father of the Constitution"?

(a) George Washington
(b) Benjamin Franklin
(c) Governor Morris
(d) James Madison

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION AND CONSTITUTION TEST

____10. Which was a weakness of the central government under the Articles of Confederation?

(a) It failed in efforts to get Great Britain to sign a peace treaty.
(b) It spent money unwisely in erecting large government buildings in Philadelphia.
(c) It was unable to settle quarrels between the states.
(d) It was unfair to the Indians during the French and Indian War.

____11. What did the Great Compromise provide?

(a) equal representation for all states in both houses of Congress;
(b) representation according to population in both houses;
(c) equal representation in the lower house; representation according to population in the upper house;
(d) equal representation in the upper house; representation according to population in the lower house.

____12. Which of these men was called the peacemaker of the Convention?

(a) James Madison
(b) Benjamin Franklin
(c) Governor Morris
(d) Alexander Hamilton

____13. Which is an example of checks and balances in the control of the government?

(a) The President appoints members of the Supreme Court, but not members of Congress.
(b) The legislative branch makes a law and enforces it.
(c) The President may veto laws passed by Congress.
(d) Members of Congress and the President are elected by the people.

____14. When was the new government under the Constitution put into effect?

(a) 1776
(b) 1781
(c) 1787
(d) 1789

CONSTITUTIONAL CONVENTION AND CONSTITUTION TEST

____15. The Articles of Confederation failed because

(a) the central government was too weak;
(b) it was too easy to amend;
(c) merchants did not support it;
(d) farmers opposed it.

____16. Federalism gave power to

(a) both the state and central government;
(b) the central government only;
(c) the state governments only;
(d) the President.

____17. Separation of powers divided responsibilities of the

(a) states and the central government;
(b) Senate and the House of Representatives;
(c) three branches of government;
(d) President and the people.

____18. A compromise is

(a) an agreement by which each side gains something and gives up something;
(b) a promise;
(c) a handshake;
(d) an unwillingness.

____19. Which is a result of the Great Compromise?

(a) the end of the slave trade
(b) interstate commerce
(c) a two-house legislature
(d) checks and balances

____20. Which was not one of the three branches of government?

(a) judicial
(b) federalism
(c) legislative
(d) executive

____21. The Preamble of the Constitution states the

(a) basic rights of all people
(b) authority of Congress
(c) purpose of the Constitution
(d) powers of the President

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION AND CONSTITUTION TEST

____22. Congress is composed of

(a) 50 Senators and the Cabinet
(b) 9 Supreme Court Justices
(c) the President and the Vice-President
(d) 100 Senators and 435 Representatives

____23. A term in the House of Representatives is

(a) two years (c) six years
(b) four years (d) for life

____24. The purpose of the Bill of Rights is to

(a) limit the power of the courts;
(b) give the President more power;
(c) protect individual rights;
(d) give the Congress more power.

____25. Judicial review allows the Supreme Court to

(a) remove the President from office;
(b) decide what laws are unconstitutional;
(c) add amendments to the Constitution;
(d) elect its own judges.

____26. Checks and balances make certain that

(a) all branches have equal power;
(b) the President makes final decisions;
(c) the courts have the most power;
(d) Congress can override the President.

____27. A term in the Senate is

(a) two years (c) four years
(b) three years (d) six years

____28. Elected officials can be removed from office by

(a) the Supreme Court
(b) impeachment and conviction
(c) a Presidential veto
(d) the Cabinet

____29. How long is a President's term?

(a) two years (c) four years
(b) three years (d) unlimited

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

CONSTITUTIONAL CONVENTION AND CONSTITUTION TEST

II. Fill in the following chart.

U.S. Constitution

People

1.__________________ 2.__________________ 3.__________________

(what each does)
(4.) (5.) (6.)

(person or group)
7.__________________ 8.__________________ 9.__________________

10.__________________ 11.__________________

(12.)(13.)

III. Answer these essay questions fully.

1. Why were the Articles of Confederation too weak to govern our nation?

2. Tell which branch is responsible for each activity:

   a. levy taxes
   b. veto laws
   c. declare war
   d. coin money
   e. appoint federal judges

AMERICAN HISTORY/BUSINESS OFFICE SERVICES

TEACHER INFORMATION SHEET
CONSTITUTIONAL CONVENTION

ANSWER KEY FOR TEST

I. Multiple Choice

1. C
2. C
3. A
4. B
5. C
6. D
7. B
8. A
9. D
10. C
11. D
12. B
13. C
14. D
15. A
16. A
17. C
18. A
19. C
20. B
21. A
22. D
23. A
24. C
25. B
26. A
27. D
28. B
29. C

II. Chart

1. legislative
2. executive
3. judicial
4. makes the laws
5. carries out the laws
6. explains the laws
7. Congress
8. President
9. Supreme Court
10. Senate
11. House of Representatives
12. two from each state
13. based on the population of the state

III. Essay Answers

1. They could not settle quarrels between the states. They did not have the power to coin money, regulate trade or levy taxes.

2. a. legislative
   b. executive
   c. executive
   d. legislative
   e. executive

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

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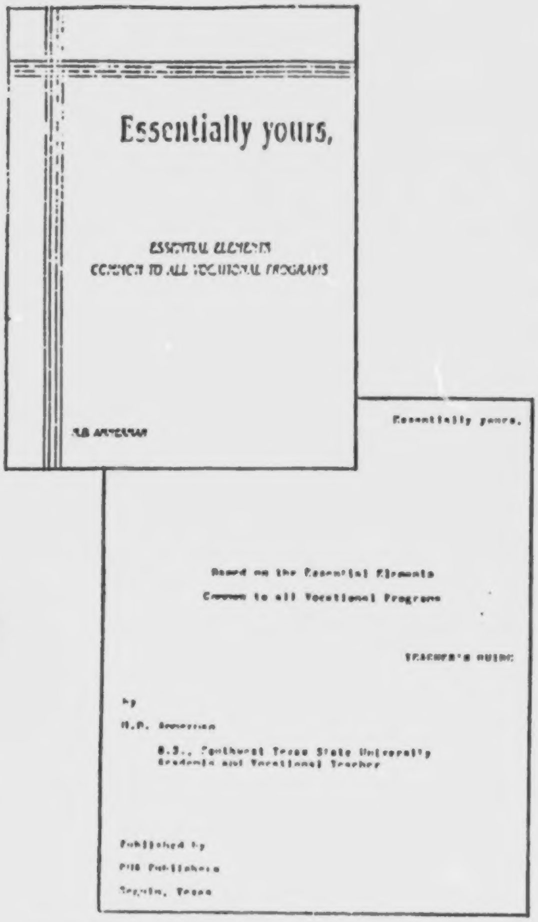

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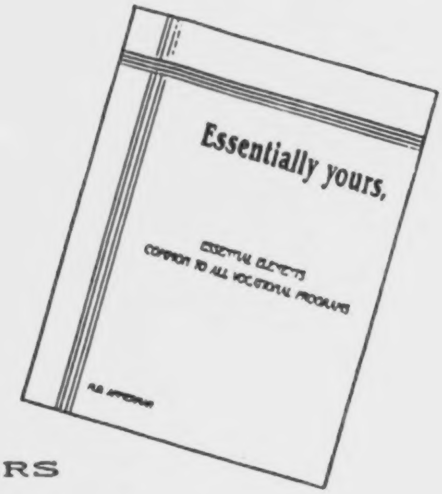

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BUSINESS OFFICE SERVICES/AMERICAN HISTORY

WORKING RELATIONSHIPS

From the Book and Workbook:
Essentially Yours, by M. D. Ammerman

Unit Objective:

Upon completion of this unit, the students will understand the importance of building and maintaining good relationships with many different kinds of people in order to work together.

Enabling Objective:

The students will be able to:

1. recognize basic human relationships as they relate to business success, and
2. demonstrate characteristics for successful working relationships.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHER INFORMATION SHEET

Unit Description:

This unit is designed to coordinate with history classes as they discuss the Constitution. Exercises are taken from the book and workbook, Essentially Yours..

Contents:

1. Motivation of Students
2. Read Chapter 11, "Working Relationships," Essentially Yours.
3. Teaching Points
4. Student Activities
5. Student Evaluations
6. Answers to Student Evaluations
7. Chapter Questions
8. Answers to Chapter Questions

Suggested Introduction:

Working in groups is so essential in all aspects of life -- government, business, and in school. The Constitutional Convention could never have been written without joint cooperation.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

MOTIVATION OF STUDENTS

Part 1

1. How many of you know people that are always happy?
2. How many of you know people that have success in almost everything they attempt to do?
3. How many of you think that you too can be successful in most of the things you do?

Part 2

1. Do you consider a teacher or your parents to be your boss, in a certain way?
2. Do you know an authority, such as a parent, teacher, clergyman, etc., that you fear or resent?
3. Have you ever had someone talk to you and you looked like you were listening but could not recall a thing that was said?

CHAPTER 11
WORKING RELATIONSHIPS

OBJECTIVE: The students will be able to:

- recognize basic human relationships as they relate to business success, and
- demonstrate characteristics for successful working relationships.

The purpose of part of this chapter is to have you recognize basic human relationships as they relate to business success. But just what are human relationships? Human relations could be defined in many ways; however, the definition that best defines what should be covered is: building and maintaining good relationships with many different kinds of people to have the best possible productivity. In other words, get along well with everyone so that everyone can do the best work possible.

No matter how good your attitude, no matter how ambitious you are, no matter how capable you are, you cannot become the type of employee that your employer wants if you cannot work effectively with other people.

In order to be successful in any career, your key is a positive attitude. With a positive attitude:

1. you are more alert and productive;
2. you are highly motivated and more energetic;
3. you give a friendly signal to others;
4. you help others become more productive;
5. you show management that you can handle problems; and
6. you are fun and cheerful.

Relationships with your co-workers are very important, but they are not the only people that you will have to get along with on the job. Your boss or your supervisor is another person with whom you must have good relationships.

Chapter 11 (cont.)

GETTING ALONG WITH YOUR BOSS

Since the supervisor is the authority figure to many employees, they either have a fear, resentment, or a feeling of hostility towards him. This is not fair to the supervisor and is the worst possible way to begin a new job. Good working relationships must exist between the supervisor and the employee.

The relationship between the supervisor and the employee is a two-way street. There are expectations that the supervisor has from the employee and also the employee can expect certain things in return from the supervisor. When these are met on both sides, normally there are no human relation problems between boss and employee.

Items the supervisor expects from the employee are:

1. Loyalty -- Just as you are not perfect, neither is your supervisor. Look for his strong points and dwell upon them. Never speak badly about your supervisor.

2. Acceptance of criticism -- Your supervisor gives you criticism for your benefit. He wants you to do your best work. Accept his criticism and put it into use immediately.

3. Enthusiasm -- There are not many jobs that are perfect. Keep looking at the good things about your job and your supervisor and forget about the bad things. Be happy about your job, and your enthusiasm will show for your supervisor to see.

4. Cooperation -- The best way to show your cooperation is to be willing to help your supervisor or your co-workers whenever possible. Doing tasks that nobody really likes to do will impress your boss and gain cooperation from co-workers.

5. Willingness to learn -- Your supervisor will expect you to learn to do things the way the employer wants them done. Put forth a special effort and be eager to learn the new ways to do a job.

Chapter 11 (cont.)

6. Initiative -- Your supervisor expects you to complete every task that you have been assigned. When you are finished and have not been told anything else, take the initiative and look around and begin doing things that you know need to be done. Do not attempt to do a task that you are not qualified to do.

7. Dependability -- Your boss expects you to be at work every day, and he has a right to expect this. He also expects you to be on time every day, not showing up late without a valid reason. If you are ill and cannot report for work, be sure and call in to let the boss know, so he can have someone else cover for you. By the same token, if you are going to be late, call your boss and inform him of the fact and the reason. Too many absences or too many tardies will be frowned upon, not only by your boss, but also by your co-workers because they are the ones that have to cover for you if you are not there.

8. Honesty -- Your boss expects you to be honest with him and the company. One of the ways an employee is not honest is by stealing time. Coming to work late, taking breaks that are too long, stopping work to gossip, quitting work before quitting time are all means of stealing time. Your boss expects you to be working all the time that you are on the payroll. Another form of stealing is stealing company property: equipment, supplies or materials. Either of these two means of stealing is theft and can lead to being fired from the job.

9. Willingness to follow directions -- Your supervisor will be giving you directions in your work. Make sure that you follow the directions exactly as they were given. Failure to do this will give your boss the impression that you do not respect him and his abilities.

You, as the employee, have the right to expect certain things from your supervisor. You may feel, so far, that everything which has been discussed has been your giving for the employer. This is true, but your employer and supervisor owe you something in return, such as:

Chapter 11 (cont.)

1. Pay your salary -- When you began work, you and the employer agreed upon a salary that was satisfactory to both. Your employer is now expected to uphold his end of the bargain and pay your salary each pay day for the work you performed.

2. Explain policies and rules -- Your supervisor has the responsibility of explaining the policies and rules to you. If for some reason you do not understand what is meant, ask him for an explanation.

3. Provide safe working conditions -- It is the duty of your supervisor to provide the safest possible working conditions for all of his employees. If for some reason there are still unsafe conditions, call it to his attention and he should get the unsafe conditions corrected. Some jobs are hazardous and cannot be made entirely safe, but it is his responsibility to make them as safe as possible.

4. Provide training -- All employees, at one time or another, will be doing something different or using some new type of equipment. It is the supervisor's responsibility to provide the training you need in order to do the work safely and correctly.

5. Evaluate your work -- At intervals determined by management, your supervisor will need to evaluate the work that you have done. It is his duty to inform you of the evaluation you have received. He should inform you of your strong points as well as your weaknesses. Many times, your salary increases and your promotions are based upon these evaluations. If there is something in the evaluation you do not understand, ask your supervisor for an explanation.

6. Discipline you for breaking the rules -- Whether you like it or not, it is the supervisor's duty to discipline you if you do not abide by the rules and regulations of the company. It is also his duty to management to report the disciplinary actions to them so they can put the actions into your permanent employment file. Do not think harshly of him, for he has his job to do, just as you have yours.

Chapter 11 (cont.)

7. Honesty -- It is the duty of your supervisor to be honest in all of his dealings with you. Honesty in evaluations, honesty in filing reports, and honesty in your criticism are all important items for which he is responsible.

Although all of the above responsibilities of your supervisor are of a positive nature, it is safe to assume they will not always be that way. Just as you have bad days at work and nothing seems to go right, your supervisor can have the same problems. He is entitled to a few bad days, just as you are. There may be times that you do not understand your boss' behavior, but go along with it. Hopefully, it will not last long and everything will be back to normal. Try not develop a negative attitude because of this situation.

One thing to strive for is to make your supervisor look good for management. The success you have on your job depends upon the success your supervisor has on his job. At any chance, make your supervisor look good and receive credit for a job well done.

There are three common mistakes made by employees in working relationships: not listening, underestimating other people, and not reporting or admitting mistakes to management.

Try to cooperate with your supervisor by a good attitude, good work, and do many of the things expected of you, he is the one that can recommend you for pay raises, a better job, or maybe even a promotion. Do not become close friends with a supervisor, but have him as a friend, anyway. Be happy and use self control.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHING POINTS

Part 1

1. Stress that attitude, more than any other item, is responsible for good working relationships.
2. Discuss what a good positive attitude will do for you.

Part 2

1. Discuss the relationship between a supervisor or boss and the employee.
2. Discuss the things that a supervisor expects of his employees.
3. Discuss the things that an employee can expect of his employer and supervisor.
4. Inform the students of the three most common mistakes made in working relationships.

STUDENT ACTIVITIES

Part 1

1. Have students select their favorite subject and explain why it is their favorite (besides this course they are taking). Have them list their attitudes, both positive and negative, about the course. When finished, have each student go over all the positive attitudes with the class to determine why they like the course the best.

2. Have students select their favorite teacher, now or in the past, and explain why he/she is their favorite teacher. Have them list the positive attitudes about that person and the attitudes of that teacher. Why did the working relationship really work?

Part 2

1. Working in groups of three or four, have the students use the nine things that a supervisor expects from an employee, discuss them, and then have each student list which of the nine they gave to the class they chose as a favorite, and which of the nine they gave to the teacher they liked the least.

2. Have the students do the same above, using what the teacher is expected to give the students. Exclude numbers 1 and 3 (pay your salary and provide safe working conditions). When they have finished, discuss the materials that have been gathered in activities one and two and stress that working relationships exist in all situations, not only on the job.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

STUDENT EVALUATION

Part 1

1. Define human relations.

2. Success in a career depends on a ________________________.

3. Name six characteristics of a person with a positive attitude.

4. In order to succeed in your job, you must get along with your _____________________ and your ______________________.

Part 2

1. What is meant by a two-way street between employee and his supervisor?

2. What is meant by willingness to follow directions?

3. What should you do if the supervisor has a bad day at work?

4. Some employees see the supervisor as an

   ____.

5. Explain initiative.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

ANSWERS TO STUDENT EVALUATIONS

Part 1

1. Building and maintaining good relationships with many different kinds of people

2. Positive attitude

3. More alert and productive
   Highly motivated and more energetic
   Give a friendly signal to others
   Help others become more productive
   Show management that you can handle problems
   Fun and cheerful

4. Co-workers and your supervisor or boss

Part 2

1. There are expectations from employee to employer and from employer to employee.

2. The employee does exactly what he is told to do without complaining.

3. Go along with him, do not make an issue of it, and hope that he will do the same for you when you have a bad day.

4. Authority figure

5. The willingness to do things, even if you have not been told to do them

CHAPTER QUESTIONS

1. Define human relationships.

2. List the nine things that a supervisor can expect from an employee.

3. What are the seven things that the employee can expect from his supervisor?

4. What are the three most common mistakes made by employees in working relationships?

5. Give the three responses for cooperating with your supervisor.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

ANSWERS TO CHAPTER QUESTIONS

1. Building and maintaining good relationships with many different kinds of people

2. Loyalty
   Acceptance of criticism
   Enthusiasm
   Cooperation
   Willingness to learn
   Initiative
   Dependability
   Honesty
   Willingness to follow directions

3. Pay your salary
   Explain policies and rules
   Provide training
   Evaluate your work
   Discipline you for breaking rules
   Honesty
   Provide safe working conditions

4. Not listening
   Underestimating other people
   Not reporting or admitting mistakes to management

5. He/She recommends you for pay raises, a better job, or a promotion. (Accept other reasonable responses, ex: so he/she will not fire you.)

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

OUR DEMOCRATIC SOCIETY

From the Book and Workbook:
Essentially Yours, by M. D. Ammerman

Unit Objective:

Upon completion of this unit, the students should understand the principles our clubs and organizations are based upon, and the strength upon which the democratic form of government depends.

Enabling Objective:

The students shall be provided opportunities to prepare for effective citizenship and for participation in our democratic society.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHER INFORMATION SHEET

Unit Description:

This unit is designed to help students understand the democratic system. It can be used to coordinate with history classes as they study the Constitution.

Contents:

1. Motivation of Students
2. Read Chapter 12, "Our Democratic Society," Essentially Yours.
3. Teaching Points
4. Student Activities
5. Student Evaluations
6. Answers to Student Evaluations
7. Chapter Questions
8. Answers to Chapter Questions

Suggested Introduction:

The next several days you are going to be studying the Constitutional Convention. As we talk about this unit, "Our Democratic Society," you will be hearing several things that pertain to the Constitutional Convention. Our Constitution guarantees that all people have the right to vote, and by our vote, we elect the people to carry out our desires and wishes. You will learn that the majority vote rules, the importance of voicing your opinions, and how vital the founding fathers were in the formation of our Constitution.

MOTIVATION OF STUDENTS

1. How many of you are now or ever have been a member of a club or organization?
2. Did any of you hold an office? Tell us about it.
3. What does it mean for you to be a member of anything like a sports team, club, or etc.?

CHAPTER 12
OUR DEMOCRATIC SOCIETY

OBJECTIVE: The students shall be provided opportunities to

- prepare for effective citizenship and for participation in our democratic society.

Upon the birth of our nation, our forefathers had the insight to decide upon and begin a democratic form of government. It is a government for the people, by the people. Our constitution guarantees that all people have the right to vote, and by our vote, we elect the people to carry out our desires and wishes. The majority vote rules. All of our laws were passed with a majority vote, either by the individual people or by the elected officials.

Just as our national government is a democratic form of government, our states, counties and cities also have the same form of democratic government. This can be carried even further down the line. Many clubs and organizations have these same forms of democratic principles.

Every person has a responsibility in our democratic form of government, whether it be national, state, or local. Many people believe that they have done a good job of participation in the democratic process if they do a good job of criticizing the government. Talk is not enough, there must be action. Democratic government needs the strength of its people to survive. If the people fail, democracy fails, because the people are the governors in a democracy.

You can learn about what democracy is by studying the operations of clubs, organizations, or other similar democratic organizations. By studying these small democracies and taking part in their operation, you can learn more about the power and responsibilities of the leaders in government than you can learn by studying a great system of democratic government in operation. By seeing these small clubs and organizations make rules, you can learn about the fundamentals of lawmaking in government. The larger things can only be understood by first understanding the smaller units of them.

Chapter 12 (cont.)

When the club has matters where they have a common interest in which to attend, they select committee members to assemble and act for them. It is easier for a small group to arrive at decisions than a larger assembly.

It is the duty of every individual member of a club or organization to be an active member. Just being a passive person is not enough. Think what would happen if everyone in the club would depend on others to lead, act, and carry out the actions decided. Clubwork could not be accomplished. It is a known fact that in most clubs, there are only a few active people doing all the work. This is not good for the club or its members. Everyone needs to participate.

What does it take to be an active member? Here are some necessary things it takes:

1. If dues are collected, be sure to pay your dues promptly when due.
2. Attend all meetings.
3. Voice your opinions on all matters.
4. Vote on all issues before the assembly.
5. Serve on committees.
6. Take an active part in all aspects of the meetings.
7. Consider running for an elective office and serve well if elected.
8. If actions of the club call for workers to carry out the actions, volunteer whenever possible.
9. Speak well of the club and try to get others to join

All clubs have a purpose for their existence. This purpose is always stated in the club's charter. A charter is an authorization to establish a chapter of a larger club that has many other chapters. The club must live up to the provisions of the charter. It must carry out the purpose of the club, follow the rules and regulations of the charter, and take part in the parent club's activities.

Just as a person must be active in a club or organization, it is the duty of the individual to take part in local, state, and national government. Each individual has the responsibility to voice his opinion and vote in all elections. By the same token, interested persons who are qualified, should consider running for an elective office. The only way any democracy can work properly is for all of the people to be active participants. Keep our nation strong, be an active citizen and display your patriotism and citizenship for everyone to see.

TEACHING POINTS

1. Stress the fact that everyone has a responsibility in a democratic society.
2. Discuss what it takes to be a good citizen and an active club member.

STUDENT ACTIVITIES

1. Divide the class into two or three groups. Call these groups "committees" and let them function as a committee, discussing and coming up with a solution to a problem or doing some worthwhile event. Be sure they include all details and act in a democratic way.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

STUDENT EVALUATION

1. How is one person important in an organization?

2. Where does a club or organization get its purpose?

3. What is a good way to understand our national, state, and local governments?

4. How should a person be active in our governments?

5. Compare clubs and organizations in our governments.

ANSWERS TO STUDENT EVALUATIONS

1. He has a voice and a vote.
2. From its charter
3. By studying clubs and organizations
4. Voice opinions, vote, and possibly run for office
5. Both are regulated by democratic principles.

CHAPTER QUESTIONS

1. What is a democracy?

2. On what principles are our clubs and organizations based?

3. Upon whose strength does the democratic form of government depend?

4. What does it take to be an active member of a club or an organization?

5. Where can you find the purpose for the existence of a club?

ANSWERS TO CHAPTER QUESTIONS

1. A government for the people, by the people
2. Democratic principles
3. Strength of the people
4. Pay your dues
   Attend all meetings
   Voice opinions
   Vote
   Serve on committees
   Take an active part
   Run for office
   Work
   Speak well of club and get other members
5. In its charter

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

LEADERS AND GROUP MEMBERS

From the Book and Workbook:
Essentially Yours, by M. D. Ammerman

Unit Objective:

Upon completion of this unit, the students will understand the characteristics and responsibilities of leaders.

Enabling Objective:

The students shall be provided opportunities to demonstrate skills, characteristics, and responsibilities of leaders and effective group members.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHER INFORMATION SHEET

Unit Description:

This unit is designed to help students understand the skills, characteristics and responsibilities of leaders and effective group members.

Contents:

1. Motivation of Students
2. Read Chapter 13, "Leaders and Group Members," Essentially Yours.
3. Teaching Points
4. Student Activities
5. Handout for Decision Making
6. Student Evaluations
7. Answers to Student Evaluations
8. Chapter Questions
9. Answers to Chapter Questions

Suggested Introduction:

As we talk about the importance of leaders and group members, think about the Constitutional Convention you have been studying in American History class. The Constitutional Convention was governed much like the rules of a club. The importance of George Washington, James Madison and Benjamin Franklin as leaders in our convention was crucial to its success.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

MOTIVATION OF STUDENTS

1. How many of you have ever been a member of a group?
2. How many of you have worked in a committee?
3. How many of you think you could be a leader? Why?

CHAPTER 13
LEADERS AND GROUP MEMBERS

OBJECTIVE: The students shall be provided opportunities to:

* demonstrate skills, characteristics and responsibilities of leaders and effective group members.

In many situations it is necessary to have a person responsible for leadership and others who help carry out the group's decisions.

Some individuals have more natural talents to become leaders and find it easier to develop these talents. Others have to work hard to accomplish this task, but everyone is capable of accomplishing leadership goals. Setting your goal to become a leader is a realistic goal.

Some of the skills and characteristics of leaders are as follows:

1. A leader must be able to read and write the language. He must be able to understand what he reads and be able to put in writing what he thinks.
2. A leader must be able to think through situations and ideas.
3. A leader must be able to make decisions. He must be able to weigh both sides of an issue and be able to come up with an acceptable decision.
4. A leader must be able to express himself. He should be able to put his thoughts into words and speak clearly so that everyone will be able to understand.
5. A leader must have self control. He must be able to control his emotions and not display anger.
6. A leader must have tact. He must be able to say things to others in such a way that he will not offend anyone.

Chapter 13 (cont.)

7. A leader must have initiative.

8. A leader must have confidence. He must constantly think, "I can do it." He must not be afraid to try.

9. A leader must be dependable. He must be on time. He must follow through on all tasks until they are finished.

10. A leader must be open-minded. He must always be open to ideas from others and consider those ideas as well as his own.

11. A leader must be honest. He must be trustworthy of his position. He is responsible for the people he leads.

12. A leader must have a positive attitude. He must be optimistic, looking for the positive things in life.

13. A leader must have foresight. He must be able to anticipate what might happen in the future and make plans to be ready.

14. A leader must be enthusiastic. He must enjoy what he is doing and have faith in his ability to do it.

15. A leader must be friendly. He must be able to get along with other people and gain their confidence.

16. A leader must have a good appearance. He must be well groomed and dressed appropriately.

17. A leader must be able to follow through. He must be able to put thoughts and ideas into actions until they are brought to completion.

18. A leader must have a sense of humor. He must be able to laugh about things that might have gone wrong.

19. A leader must be able to speak before an audience. He must be able to go before a group and be able to inform them.

20. A leader must be able to take criticism. He must be able to accept criticism from his followers; accept it, weigh it, and then either use or discard it.

Chapter 13 (cont.)

A leader should attempt to maintain these characteristics. This will help him to be an effective leader.

You can become an effective leader by setting your goals to achieve the characteristics of a leader and working towards that accomplishment. Only you can make yourself a leader. Others can help, but it is up to you to decide that is what you want to do. Self determination and application is what it takes.

DECISION MAKING:

Everyone makes decisions. Some are small and made easily. Others are more difficult to make and require more time. Making mistakes can even be valuable in building decision-making experiences. Knowing you can make good decisions will help you be in charge of your life.

Some people make decisions by "flipping a coin." Others make their decisions on the spot without any thought. Still others make their decisions by getting information before deciding. Some let other people make their decisions for them.

Different people have different attitudes. Regardless of your attitude, a realistic approach is required. Being realistic requires accepting some uncertainty about the results of a decision. Mistakes will be made, so using these mistakes as learning situations is more realistic than insisting on perfection.

Most people have to make decisions on incomplete information. Sometimes there is not enough time to collect all the information, and sometimes it is not available. Collecting information before making a decision is valuable, but you need to know what kind of information you need. By knowing the purpose of your decision, you will help yourself make a satisfactory decision.

A step-by-step procedure is a helpful aid in making decisions. A procedure of this kind can help you organize your thinking so you can evaluate your alternatives realistically. Use the Decision Making worksheet on page 214. The decision making guide has five steps:

Chapter 13 (cont.)

1. Defining the problem or issue
2. Gathering information and listing alternatives
3. Evaluating alternatives
4. Taking risks
5. Getting and using feedback

This guide is helpful to people who need to develop confidence in their decision making skills. After you have used the guide a few times, you will be able to think through the steps quickly without writing them down. Decision making is a skill which can be developed through practice. Each decision, whether good or bad, is a learning experience. One thing to remember is that an individual is responsible for his decisions and actions.

GROUP AND COMMITTEE MEMBERSHIP:

A group is a number of people who are gathered for a common purpose. This definition fits our clubs and organizations. A club has many people who gather together to accomplish the purpose of the club. Inside this group of people, or club, there are smaller numbers of people who are either appointed or volunteer themselves to accomplish a purpose. This small group of people is a committee.

With this in mind, let us take a look at a group. The club members join together, in a democratic way, to conduct its business and carry out its projects. All the members of the group participate in the activities of the club. The officers are the leaders, and the remaining members are the followers.

A committee, within a group or club, is a small number of people that have been selected from the group. Some of the work of the club is done in committees. It is much easier for a few people to discuss an issue and come up with a decision than it is for the whole group to act. The committee consists of a leader, who is the chairman; a recording secretary, who keeps records of the meeting; and the committee members.

The committee receives its instructions from the secretary of the club. It is the chairman's responsibility to call the meeting of the committee. If the chairman fails to call the meeting, any two members of the committee may do so. The recording secretary is selected by the committee members.

Chapter 13 (cont.)

In general, there are two types of committees. The standing committee serves for a period of one year and the chairman of the committee is appointed by the president of the club. The other type of committee is a special committee and it serves for the period of time that it takes to fulfill its obligation to the club. This is normally from one meeting of the club until the next. The chairman is also appointed by the president of the club. If, for some reason, the chairman was not appointed, the committee members may elect their own chairman with a majority vote.

The rules of the club also apply to the committee; however, the committee meetings are less formal. In the committee meetings:

1. Motions to close or limit decisions are not allowed.
2. A member of the committee may speak an unlimited number of times.
3. A member does not have to stand when speaking.
4. The chairman does not leave the chair in order to enter into the discussions.
5. Motions do not have a second.
6. All questions must be put to a vote.
7. Committee reports should be written and signed by the chairman.

In our democratic society, it is your privilege and responsibility to be active in clubs and organizations that serve our community and nation.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHING POINTS

1. Explain the characteristics of leaders.
2. Explain the decision making process.
3. Explain the difference between a group and a committee.
4. Discuss the procedure of a committee meeting.

STUDENT ACTIVITIES

1. Assemble students in groups of five or six, and let them serve as a committee. Have them select a chairman and a recording secretary. Give each group a handout for decision making. Assign the same problem to all committees and have them use the decision making steps to get to a solution to the problem.

2. When they have finished, have the chairman report their decisions to the class. Repeat the steps in number one, changing the chairman and secretary. Give the students another problem to solve.

BUSINESS OFFICE SER[illegible]ES/AMERICAN HISTORY

DECISION MAKING WORKSHEET

What is the issue to be decided? ______________________________

____

____

ALTERNATIVES AND INFORMATION	PROBLEM OUTCOME (evaluation of alternatives)	RISKS INVOLVED

Circle the alternatives you have chosen.

What feedback will help you evaluate your decision? ______________________

____

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

STUDENT EVALUATION

1. In short form, list ten characteristics of leaders that you believe to be most important.

2. How do some people make decisions?

3. Why do clubs use committees?

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

ANSWERS TO STUDENT EVALUATIONS

1. Answers will vary.

2. Flipping a coin
   On the spot-no thought
   Getting information
   Let other people make their decisions

3. In order to be able to conduct business faster and easier

CHAPTER QUESTIONS

1. Name the five steps in decision making.

2. Who is held responsible for the decisions made?

3. Define group.

4. Define committee.

5. Name the two types of committees and give the differences.

ANSWERS TO CHAPTER QUESTIONS

1. Defining the problem
   Gathering information and listing alternatives
   Evaluating alternatives
   Taking risks
   Getting and using feedback

2. The person who made the decision

3. A number of people who are gathered for a common purpose

4. A small number of people within the group

5. Standing committee serves for a period of one year, and the special committee serves for a short time.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

ENTREPRENEURSHIP

From the Book and Workbook:
Essentially Yours, by M. D. Ammerman

Unit Objective:

Upon completion of this unit, the students should demonstrate an understanding of the free enterprise system.

Enabling Objective:

The students will be able to:

1. identify opportunities for business ownership;
2. understand the risk and profit motive;
3. understand the elements and advantages of the free enterprise system; and
4. explain the role of the small business in the free enterprise system.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHER INFORMATION SHEET

Unit Description:

This unit is designed to teach the concepts and skills associated with entrepreneurship. Exercises are taken from the book and workbook Essentially Yours..

Contents:

1. Motivation of Students
2. Read Chapter 18, "Entrepreneurship," Essentially Yours.
3. Teaching Points
4. Transparencies
    a. Advantages and disadvantages of selected legal forms of business organizations
    b. Factors that cause business failure
5. Student Activities
6. Student Evaluations
7. Answers to Student Evaluations
8. Chapter Questions
9. Answers to Chapter Questions
10. How About You?

Suggested Introduction:

We are going to be studying entrepreneurship (the act of creating a new enterprise). The kind of government a country has determines what kind of economic system it will have. We have a democratic form of government and free enterprise economic system. You are studying the Constitution's history; therefore, we know that we have freedoms which are guaranteed by our Constitution. Citizens have the right to own property and the right to make a profit.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

MOTIVATION OF STUDENTS

1. How many of you would like to own a business of your own?
2. How many of you know a successful business person?
3. Do all business persons become rich?

CHAPTER 18
ENTREPRENEURSHIP

OBJECTIVE: The students shall be provided opportunities to

- identify opportunities for business ownership,
- understand the risk and profit motive,
- understand the elements and advantages of the free enterprise system,
- explain the role of small business in the free enterprise system.

Most people in the United States, at one time or another, get the idea that they would like to go into business on their own. Many of them keep working for other businesses, but many try to do it on their own. In order to understand why so many people go into their own business in this country, an understanding of economic systems is needed. Of all the different types of economic systems in the various countries of the world, there are three major types.

Communism -- In communism, the government owns and controls all businesses and the people work for the government. They are allocated a certain amount of money on which to live. There is no ambition for more production because they receive the same amount of money, goods, or services no matter how much they produce.

Socialism -- In socialism, there are public collectively owned businesses for production and distribution of goods and services. The aim is to control the amount of production or services, not for profit, but for an equitable share for everyone. All people are assured of receiving their share of goods, services and welfare benefits. There is very little ambition because there is no profit motive.

Capitalism -- In capitalism, our democratic, free enterprise system, there is freedom for production of goods and services. There is much ambition because of the profit motive.

Chapter 18 (cont.)

OUR ECONOMIC SYSTEM:

The kind of government a country has determines what kind of economic system it will have. In the United States, we have a democratic form of government and free enterprise economic system. Because of the freedoms guaranteed by our Constitution, anyone has the right to own property and the right to make a profit. A combination of these two rights makes the free enterprise system. Our government does not own or operate any business that deals with economic goods.

Under the free enterprise system, everyone has the right to go into business for himself if the market permits. Our system is based on the market. This market determines what type of business you would want to enter, how competitive it is, and whether it will be a success or not. What is a market? A market is a group of people or businesses who have the needs for a product and the willingness to buy the product or service. A market always requires three things: people, need, and willingness to buy.

Every year over 250,000 new businesses are formed in the United States. By far the greatest number of these new ventures are small businesses. While small business accounts for only a minority of the sales, assets, and profits of American business, they represent the majority of business enterprises. Not only is the business a small one, but it is also self-owned. Entrepreneurship is thus an important element in the career of many Americans. At least eight million people, about 10% of the work force, are owners of small businesses, and a good many more work in such small businesses.

Some of the characteristics of this small business are as follows. They represent most of the firms doing business in services and over half of the firms in wholesale and retail trade. It is not hard to understand why the small proprietorships are concentrated in these few selected areas. These industries require relatively little money to start. Fewer small firms are formed in manufacturing, construction, mining and finance. Money is needed for buying goods and for salaries, but the amounts are less than required to buy equipment and build factories for manufacturing. In addition, technical skills needed in service or trade are more easily acquired than the engineering skills of a manufacturer or the financial skills needed in banking.

Chapter 18 (cont.)

We now think of basic American values as being expressed in the careers of small business owners. The basic values are: individualism, initiative, pioneering spirit, importance of self expression, independence, persistence, inventiveness, hard work, and free enterprise. The chance for any individual to succeed on his own efforts still attracts many people. Even though there are many large corporations in our economy, great success has been achieved by small business owners.

Entrepreneurship is seen as a chance to gain special rewards. These rewards include independence, a potentially high income, personal growth, being in charge, trying one's own ideas, choosing one's own work hours, etc. Special responsibilities also fall to the entrepreneur as the ultimate decision maker in the business, who enjoys or suffers the results of his own decisions.

Many people begin their own businesses but fewer of them succeed. What distinguishes the successful entrepreneur from the unsuccessful one? Successful entrepreneurs are characterized by the following traits:

1. Money to outlast the lack of income
2. Technical knowledge of how to operate a business
3. Ability to absorb setbacks
4. Patience to wait until the business really "takes off"
5. Ambition, energy and drive
6. Independence
7. Ability to take full responsibility for decisions
8. Realistic expectations about the work required
9. Persistence
10. Ability to communicate

Loneliness is part of owning your own firm. There is no one to congratulate you for good decisions, to prevent you from making poor ones or to assume responsibility for you. But then, there is nobody to tell you what to do.

PROFITS:

Profit is the difference between income and expenses. This is the amount of money that may be used for business expansion or improvements, or for distribution to the business owners. The amount of profit made by a firm depends largely on the law of supply and demand. The supply part of the law is the amount of goods produced. The demand is the money available and the willingness of the people to buy the goods. When the supply and the demand are the same, the price of the goods remain the same, all the goods will be sold, and everyone who wants to purchase the goods will be able to do so. When the supply exceeds the demand, the amount of goods will be too large for the number of people who wish to buy. Therefore, the price will be lower. If the demand is greater than the supply, the number of people wanting to purchase the goods will be greater than the amount of goods available. Therefore, the price of the goods will be higher. This law of supply and demand regulates the amount of profit that is possible to be made. Another profit factor is competition.

COMPETITION:

The firms that produce goods or services of the same nature that you produce are called competition. Competition is part of the free enterprise system and it is necessary for the following reasons:

1. to keep prices down and to control production,
2. give customers a choice of whom to patronize,
3. make every business work harder to beat competition,
4. only the most efficient firms stay in business, and
5. encourage product research and improvement.

OWNING YOUR OWN BUSINESS:

Not everyone should try to own or operate their own business. Not everyone has the abilities to do so. It takes a person with a strong desire to succeed, a person who likes to be his own boss, and a person who can make his own decisions to be a business owner.

Chapter 18 (cont.)

In addition to these traits, the person must also possess the following:

1. a knowledge of the business;
2. a knowledge of the market;
3. a knowledge of the competition;
4. the ability to manage money, people, products and services;
5. enough money to operate until the business can become profit making;
6. sales ability to market your products or services; and
7. the ability to beat your competition.

If you should decide to go into business for yourself, you should consider the following items:

1. Not only your future, but that of your family is at stake.
2. You will have no guarantees that the business will be a success and you might lose all your investments.
3. You need to put your profits back into the business for the first few years in order for it to grow.
4. You will have to work harder for yourself than you would for an employer.
5. You will have to work longer hours than if you worked for an employer.
6. You will not be able to take time off or a vacation for several years.
7. You will have to take into consideration that about 90% of new business failures are due to poor management or not enough money available.
8. You will need to have the ability to estimate costs accurately.
9. You will be responsible for all your employees' work as well as your own.
10. You will be responsible for all liabilities.
11. You must have confidence in your own work skills.
12. You must know how to keep accurate records in accounting and inventories.
13. You need to have a strong desire to succeed.

Before you decide to go into business, you need to get some professional help. This help is needed for decision making and also to decide if you want to go into business for yourself.

Chapter 18 (cont.)

Financial help is needed and can be obtained from your banker and accountant. It is needed to help you estimate your start-up costs, your costs of doing business, the amount of financing you will need, and the costs of operation. They can help you with prices for your goods, profits you will need, and amount of taxes you will have to pay.

Business management help is available from several sources. The Small Business Administration, a government agency, is there for your help. Most cities have an organization of former business owners and managers who help people with their business problems and give advice. There are also trade organizations and the Chamber of Commerce who are willing to help with your business management. They will be able to assist you in the market survey, product information and other helpful information.

Legal advice will be needed and can save you lots of money in the long run. An attorney can help you set up the right kind of business ownership, give you information about license requirements, business forms that you will need, determine your insurance needs, draw up contracts and other legal papers that you might need, and determine the amount of liability to which you will be exposed.

If you decide to go into business for yourself, you will also have to begin making other decisions. Some of these decisions are:

1. What will be the location of my business?
2. How much space will I need?
3. What kind of equipment will I need and what will it cost?
4. How much will it cost me to operate the business?
5. How much goods or services will I be able to sell in the present market?

When all of the things mentioned have been taken into consideration, you will have a better idea of whether you should or should not go into business for yourself. If you decide to do so, you should consider whether you wish to go it alone, go into business with a partner, or go into business as a corporation. On the next page is a chart that gives you the advantages and disadvantages of each of the three types of business ownership. Also, you will find a chart that gives you the primary factors that cause business failure.

ADVANTAGES AND DISADVANTAGES OF SELECTED LEGAL FORMS OF BUSINESS ORGANIZATION

Form of Organization	Advantages	Disadvantages
Sole Proprietorship	Easily formed and terminated Direct, undiluted management and control All profits to owner Flexibility Secrecy Minimum taxation and regulation	Management limitations Unlimited liability of owners Limited fund raising ability Limited life of the business
Partnership	Easily formed Combined resources Fund raising ability Management and profit incentive Minimum taxation and regulation	Unlimited liability of owners Management conflicts Limited life of the business Difficult transfer of ownership
Corporation	Limited liability of owners Unlimited life of the business Easy transfer of ownership Fund raising ability Managerial talent	Complicated formation Heavy taxation and regulation Division of owners and managers Unlimited liability for small corporations Business in other states

FACTORS THAT CAUSE BUSINESS FAILURE

PERSONAL FACTORS	INADEQUATE PLANNING	INADEQUATE FINANCING	OBSOLETE METHODS
Lack of business knowledge	Poor location planning	Use of working capital to purchase fixed assets	Poor expenses controls
Willingness to accept advice	Failure to foresee major marketing opportunities	Not enough capital reserves to withstand slow business	Poor inventory controls
Unwillingness to work long hours	Failure to plan properly for financial needs	Lack of funds to purchase adequate inventory	Poor accounts receivable controls
Content with the things as they are	Failure to anticipate personnel requirements	Lack of adequate finds to obtain best location	Poor Personnel policy
Excessive expenditures in good and bad economic periods	Inadequate advertising strategy and planning		Lack of modern equipment
Using operating funds for non income generating expenses			Poor cost records and pricing methods
Lack of economic knowledge about industry and region			

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

TEACHING POINTS

1. Compare our capitalistic economy with the economy of communism and socialism.
2. Discuss what it takes to be an owner of your own business.
3. Discuss the law of supply and demand, profits, and competition.
4. Discuss the 13 items needed to go into business.
5. Discuss the benefits of getting professional help.

STUDENT ACTIVITIES

1. Have the students complete the business self evaluation handout. Ask them to be honest with their answers.

2. Have the students decide upon a business that they would like to start for themselves. Have them answer the following:

    a. What kind of business would you go into?
    b. What kind of legal form of business organization?
    c. Locally, who would be your competition and name them?
    d. How much would it cost you to get in operation?
    e. How much would it cost you to operate the first year?
    f. How much income could you produce the first year?
    g. Where would you locate your business?
    h. How many employees would you need?
    i. What would be their salaries?

3. Have students discuss their answers with the class. (You'll be surprised at how much money they can make.) Be sure students have realistic expectations.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

STUDENT EVALUATION

1. Explain the economic system in communism.

2. Explain the economic system in socialism.

3. Explain the economic system in capitalism.

4. What is profit?

5. What is competition?

6. List three traits needed of a person who starts his own business.

7. What does entrepreneurship mean?

8. What is meant by free enterprise?

9. List five basic American values given in this unit.

10. What professionals could help you when starting a small business?

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

ANSWERS TO STUDENT EVALUATIONS

1. In communism, the government owns and controls all businesses and the people work for the government.

2. In socialism, there are public owned businesses for production of goods and services. Amount of production is controlled with an equitable share for everyone.

3. In capitalism, there is freedom for production of goods and services. Businesses are individually owned for profit.

4. Profit is the difference between income and expenses.

5. Competition is firms that produce the same goods or services that you produce.

6. Any three:
   strong desire to succeed;
   likes to be his own boss;
   can make his own decisions;
   a knowledge of the business;
   a knowledge of the market;
   a knowledge of the competition;
   the ability to manage money, people, products and services;
   enough money to operate until the business can become profit making;
   sales ability to market your products of services; and
   the ability to beat your competition.

7. Entrepreneurship means owning your own business.

8. Free enterprise is the ability to own property and to make a profit.

9. Any five:
   Individualism, initiative, pioneering spirit, importance of self expression, independence, persistence, inventiveness, hard work, and free enterprise.

10. Financial-banker or accountant, business management-Small Business Administration, former businessmen, Chamber of Commerce, legal-attorney.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

CHAPTER QUESTIONS

1. How can you determine the opportunities for business ownership?

2. What are the risk and profit motives for going into business for yourself?

3. What are the elements and advantages of the free enterprise system?

4. Explain the role of small business in the free enterprise system.

ANSWERS TO CHAPTER QUESTIONS

1. By surveying the market.
2. The risk is that you can go broke, and the profit is the unlimited amount of money you can make.
3. You can own property and you can make a profit. This means you can own your own business and make as much money as possible.
4. Small business operates over one half of the service business in the United States, and over 10% of the people own their own business.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

Make a copy of this for each student to answer.

HOW ABOUT YOU?

Under each question, check the answer that says what you feel or comes closest to it. Be honest with yourself.

ARE YOU A SELF STARTER?

_______ I do things on my own. Nobody has to tell me to get along.

_______ If someone gets me started, I keep going all right.

_______ Easy does it, man. I do not put myself out until I have to.

HOW DO YOU FEEL ABOUT OTHER PEOPLE?

_______ I like people. I can get along with just about anybody.

_______ I have plenty of friends--I do not need anyone else.

_______ Most people bug me.

CAN YOU LEAD OTHERS?

_______ I can get most people to go along when I start something.

_______ I can give orders if someone tells me what we should do.

_______ I let someone else get things moving. Then I go along if I feel like it.

CAN YOU TAKE RESPONSIBILITY?

_______ I like to take charge of things and see them through.

_______ I will take over if I have to, but I would rather let someone else be responsible.

_______ There is always some eager beaver around wanting to show how smart he or she is. I say let them.

HOW GOOD AN ORGANIZER ARE YOU?

_______ I like to have a plan before I start. I am usually the one to get things lined up when the gang wants to do something.

_______ I so all right unless things get too goofed up. Then I cop out.

_______ You get things all set and then something comes along and blows the whole bag. So I just take things as they come.

HOW GOOD A WORKER ARE YOU?

_______ I can keep going as long as I need to. I do not mind working hard for something I want.

_______ I will work hard for awhile, but when I have had enough, that is it, man!

_______ I cannot see that hard work gets you anywhere.

CAN YOU MAKE DECISIONS?

_______ I can make up my mind in a hurry if I have to. It usually turns out OK, too.

_______ I can if I have plenty of time. If I have to make up my mind fast, I think later I should have decided the other way.

_______ I do not like to be the one who has to decide things. I would probably blow it.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

LAYOUT AND DESIGN

From the Book and Workbook:
Essentially Yours, by M. D. Ammerman

Unit Objective:

Upon completion of this unit, the students will complete a mailable printed copy of the Constitution.

Enabling Objective:

The students should be able to demonstrate the ability to design a thumbnail sketch, rough draft, and comprehensive layout suitable for printing.

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TEACHER INFORMATION SHEET

Unit Description:

This unit is designed to coordinate with the history classes as they write their own Constitution. Students will use previously learned skills to print the Constitution for history class.

Contents:

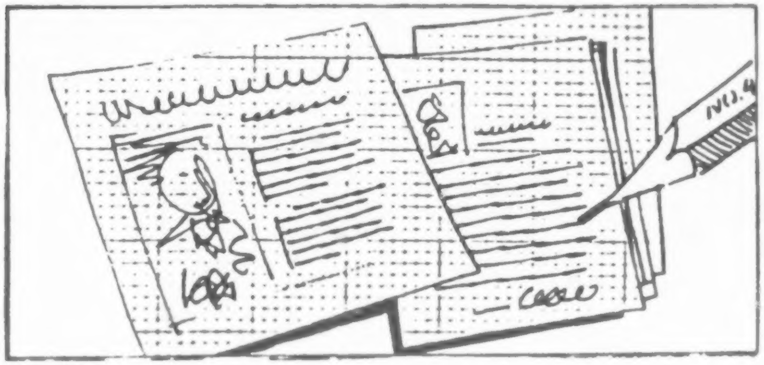
1. Discuss Layout Sequence
2. Discuss Thumbnail Sketches
3. Discuss the Rough Draft
4. Discuss the Comprehensive Layout
5. Assignment Sheet 1
6. Student Evaluations
7. Sample of Constitution

Suggested Introduction:

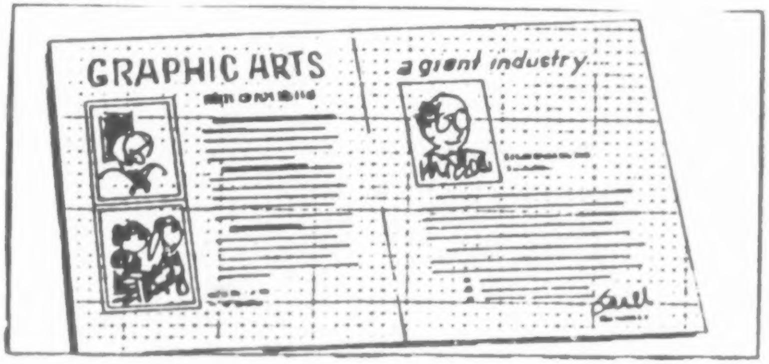
We have been working on several layout and design assignments. Today, I want you to use your layout skills to design and print the Constitution you have written in history. As a review, we will discuss making a thumbnail sketch, rough draft, and comprehensive layout. Remember that a thumbnail sketch is made quickly to determine the general form of the page. It should be made with a pencil and no letters or words should be used. A rough draft is based upon the best thumbnail sketch and used to obtain a good preview of the finished product. The comprehensive layout is based upon arrangements of the rough layout and is made to look exactly like the finished product. Be sure to proofread your typing before you add the clip art pictures to your paper.

LAYOUT SEQUENCE

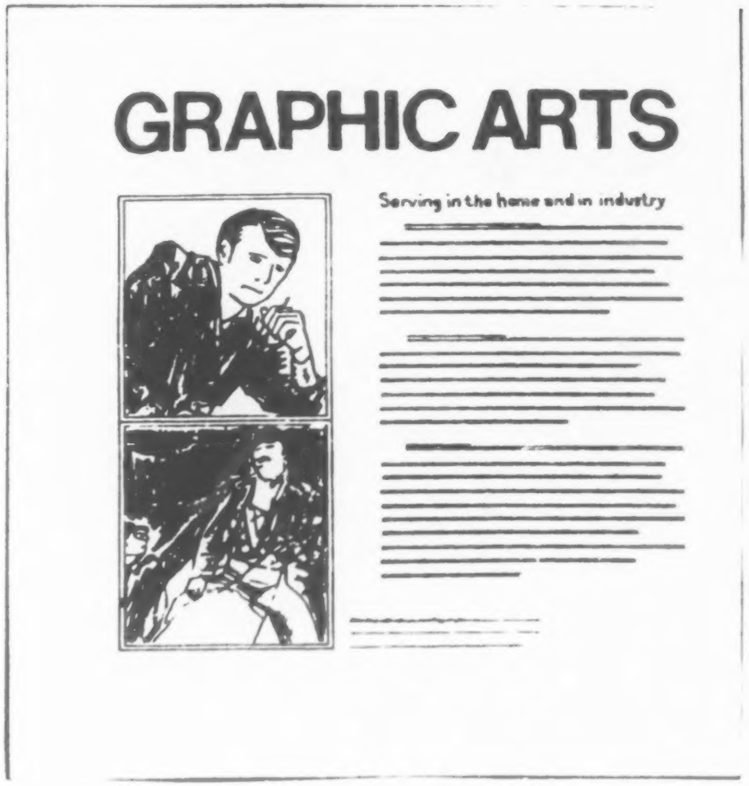
FIRST THUMBNAIL SKETCHES



SECOND ROUGH LAYOUT



THIRD COMPREHENSIVE LAYOUT

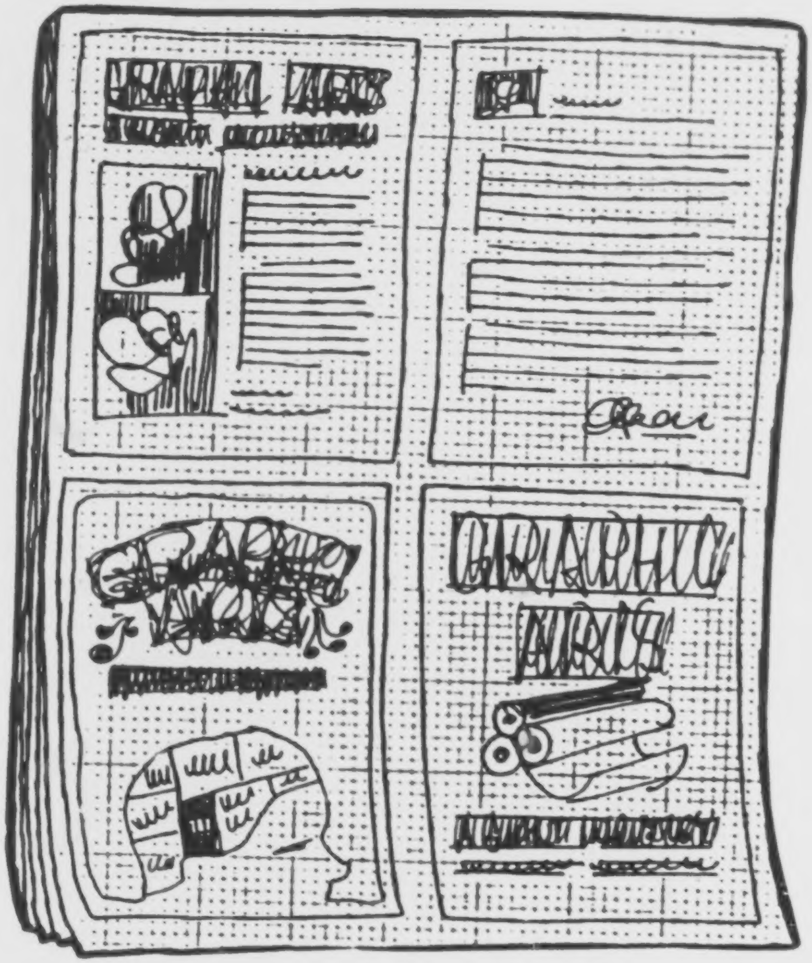

GRAPHIC ARTS
Serving in the home and in industry

THUMBNAIL SKETCHES

STEP 1 IN THE LAYOUT PROCEDURE

MADE QUICKLY TO DETERMINE GENERAL FORM OF AD OR PAGE.

- USUALLY MADE 1/4TH SIZE.
- USE A SOFT PENCIL.
- SHADE AREAS TO REPRESENT WORD ELEMENTS -- (NO LETTERS OR WORDS SHOULD BE USED).
- SKETCH ILLUSTRATIONS (OPTIONAL).
- USE LIGHT BLUE 1/8" OR 1/4" GRID PAPER FOR CONVENIENCE.
- SKETCH SEVERAL IDEAS BUT ALWAYS A MINIMUM OF FOUR.

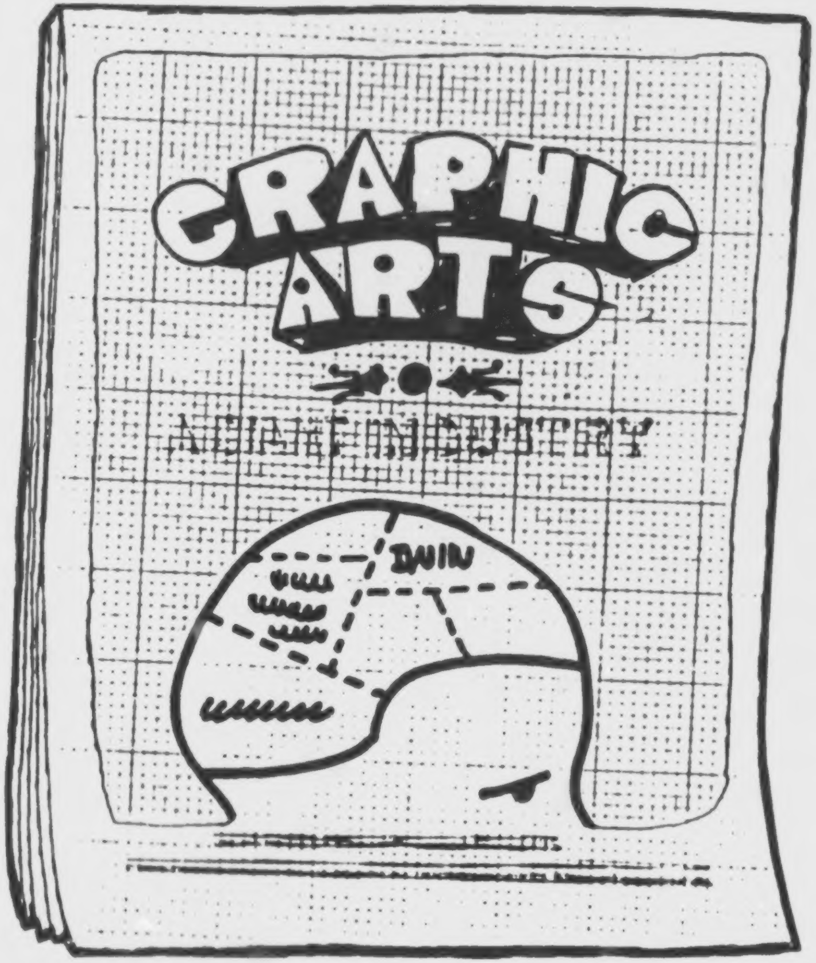


THE ROUGH LAYOUT

STEP 2 IN THE LAYOUT PROCEDURE

- BASED UPON THE BEST THUMBNAIL SKETCH (SELECTED BY THE CLIENT OR LAYOUT ARTIST).
- USED TO OBTAIN FIRST GOOD PREVIEW OF FINISHED PRODUCT.

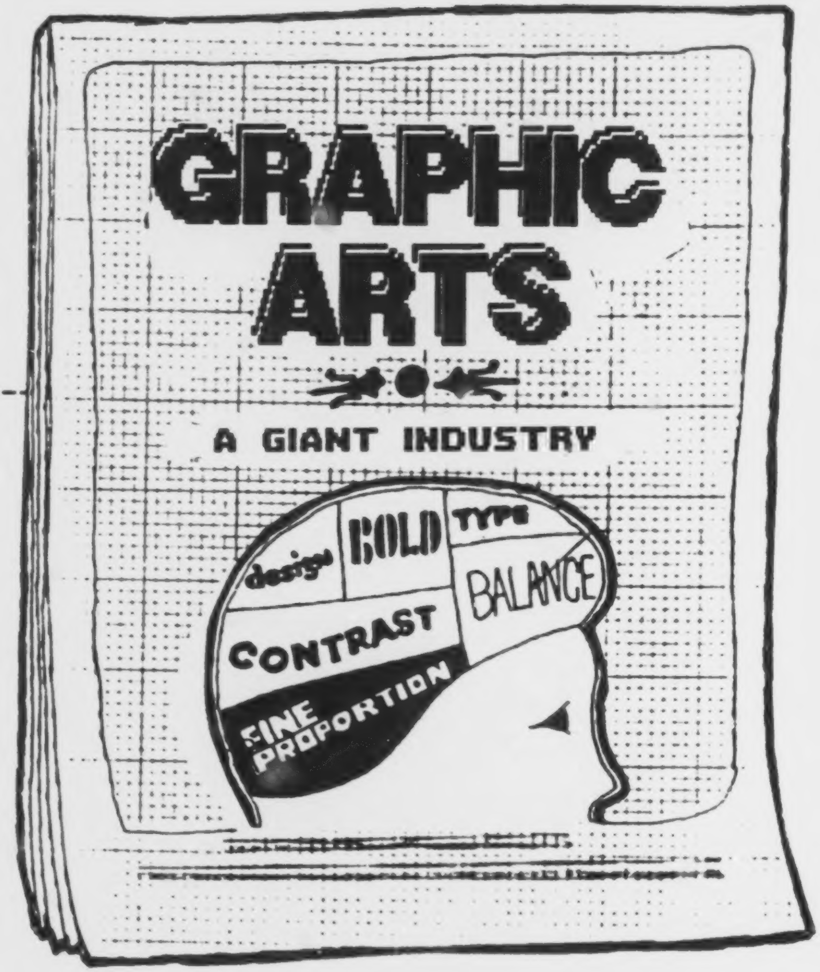
- MAKE ROUGH LAYOUT **FULL SIZE.**
- USE A SOFT PENCIL (BLACK OR COLORED).
- SKETCH ILLUSTRATIONS.
- USE LETTERING FOR TYPE LARGER THAN 14 POINT AND LINES FOR SMALLER TYPE.
- USE LIGHT BLUE 1/4" GRID PAPER FOR CONVENIENCE.
- PREPARE ONE LAYOUT, STUDY IT, AND REVISE AS MANY TIMES AS NECESSARY.



THE COMPREHENSIVE LAYOUT

STEP 3 IN THE LAYOUT PROCEDURE

- BASED UPON ARRANGEMENTS OF THE ROUGH LAYOUT.
- MADE VERY EXACTING ("TIGHT") SO AS TO LOOK LIKE FINISHED PRODUCT--SIZES, SHAPES, STYLES, COLORS, POSITION OF ELEMENTS.
- CLIENT CAREFULLY EVALUATES THIS LAYOUT BEFORE PRODUCTION BEGINS.
- USED TO GUIDE THE TYPESETTER AND PRINTER.



- AN EXACTING PRELIMINARY DRAWING IS DRAWN TO SIZE ON LAYOUT OR TRACING PAPER.
- THE BACK OF THE PRELIMINARY IS COVERED WITH AN EVEN COATING OF CHARCOAL OR SOFT GRAPHITE (6B OR 8B).
- DRAWING IS POSITIONED ON ILLUSTRATION BOARD (OR WHATEVER SURFACE THE COMP IS TO BE PREPARED ON) AND SECURED WITH MASKING TAPE.
- THE LINES OF THE ORIGINAL PRELIMINARY ARE RETRACED CAREFULLY WITH A FINE-TIPPED COLORED MARKER OR PENCIL.
  - -- THE ORIGINAL IMAGE IS TRANSFERRED IN CHARCOAL ON THE ILLUSTRATED BOARD.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

ASSIGNMENT SHEET 1

PRINTING THE CONSTITUTION

SUPPLIES NEEDED:	Scissors Rubber cement Ruler Clip art pictures Typing paper

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1. Make a thumbnail sketch. Determine the general form of the page. Use a pencil.
2. Design a rough layout. Be sure to leave room at the bottom for student signatures.
3. Begin work on the final typing of the Constitution.
4. Glue clip art pictures to paper. Print any lettering you have chosen to put on paper.
5. Print enough copies for each student in history class to have one.

BUSINESS OFFICE SERVICES/AMERICAN HISTORY

STUDENT EVALUATION

Final copy evaluated to the instructor's satisfaction.

THE CONSTITUTION

WE the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE 1 Legislature

ARTICLE 2 Powers of Legislature

ARTICLE 3 Powers Denied the States

ARTICLE 4 Executive

ARTICLE 5 Powers of the Executive

ARTICLE 6 Courts

ARTICLE 7 Ratification of Constitution

LIFE MANAGEMENT SKILLS / READING

Vocational Unit: Positive Self Image

Topic: Determining personal strengths and weaknesses relating to self-esteem (self-concept)

Objective: The student will be able to identify their own strengths and weaknesses and determine what effect they have on a friendship.

Introduction: We have been discussing the outside factors that influence our personalities (environment, family, friends), but today I want us to look more closely at ourselves. There is an ink pad on the table (students sit 4 to a table), and I want each of you to make a thumbprint on the top of your paper. Share that picture with others at the table telling them how the thumbprints are different . . . how they are the same. Each of us is just like that thumbprint . . . different, unique, special. Today we will discuss the characteristics that make us unique.

Method: Class discussion
Discovery

Learning Activity: Personal Strengths Auction -- Students will brainstorm characteristics that are important to have in order to have a good self-concept. (List is written on chalkboard for all to see.)

Play money is distributed to each student (I use Monopoly money in the amount of $150.00). After teacher leads discussion identifying and describing each characteristic, students will individually decide which characteristics they want to purchase. We go through an actual auction; students bid on which characteristics they think are the most important to have. We have an auctioneer and banker and students pay with their "money."

Resources: Play money

Evaluation: Upon completion of the auction, students list purchases and briefly explain why they chose these particular characteristics (can be done orally or written). If there is time, it is important to allow them to share their answers.

Time allowing, further discussion could be included as to the importance of these characteristics in classrooms, at home, in the work place, or in public. Noting the consequences of a lack of admirable characteristics might also be addressed.

Summary: It is important to know yourself and like yourself in order to continue to improve your self-concept. Examining your own strengths and weaknesses helps you to know yourself better. Students will answer a self-esteem inventory/questionnaire, knowing their answers will not be graded or seen by others.

Optional Expansion: It would be helpful to spend more time stressing the relevance of the business world. Initiate a class discussion with some incidents that "turn off" a customer in a store, restaurant, or other places of business. Students could relate this to personality weaknesses. Students would be asked to discuss or role play a positive way to handle the following situations:

(a) A salesperson who cannot control his/her temper.
(b) Being able to give and take constructive advice.
(c) An employee who does not have self-confidence.
(d) An employee who is not very dependable.

Rating Your Self-Concept

Directions: This check list will help you to evaluate both positive and negative aspects of your self-concept. Rate each personality characteristic carefully. Check the column that shows how often you display each characteristic. After you have finished, add any characteristics that are not listed but you feel describe you.

PERSONALITY CHARACTERISTIC	NEVER	SOMETIMES	MOSTLY	ALWAYS
Outgoing with People				
Responsible at Home and at School				
Control my Temper				
Loyal and Trustworthy				
Accept Praise Gracefully				
Accept Criticism Gracefully				
Make Thoughtful Decisions				
Show Flexibility				
Respect Authority				
Display Self-Confidence				
Show a Sense of Humor				
Cooperate With Others				
Achieve the Most I Can				
Control Temper				
Trust Others				
Other Characteristics				

WHAT KIND OF A FRIEND ARE YOU?

1. Are you usually cheerful with others even if you do not particularly like them as a best friend?
2. Do you borrow things/money from your friends and then forget to give them back?
3. Do you compliment others on the good things they do or the way that they look?
4. Do you frequently make your friends wait on you?
5. Do you find yourself resentful when your best friends are friendly to someone else?
6. Do you restrain yourself from repeating gossip that you hear about others?
7. Do you make "cutting" or sarcastic remarks about others?
8. Are you friendly to those who are not in your "clique" in school?
9. Do you spend most of your time telling your troubles to your friends?
10. Are you a good listener?
11. Would you like to have a friend who had the same personality traits that you have?
12. Do you frequently quarrel with friends?
13. Have you had one or more of the same friends for more than one year?
14. Do you have more than one close friend?
15. Are you ever jealous of your friends?
16. Do you make friends easily with both boys and girls?
17. Do you trust your friends?
18. Can you be counted on to keep your promise?
19. Do you have one or more traits that you know irritate others?
20. Do you often brag about yourself, achievements, and skills to your friends?

LIFE MANAGEMENT SKILLS / READING

21. Are you the bossy type?

22. Do you know that you are too shy?

23. Do you often argue just to see what reaction you will get from others?

24. Can you apologize easily when you know you are wrong?

LIFE MANAGEMENT SKILLS / READING

Vocational Unit: Food Labels

Topic: Factors that influence food purchasing decisions

Objective: Given examples of buying situations, the students will be able to identify the factors that influence their buying decisions.

Introduction: Over the past week, we have been investigating the factors that affect our purchasing decisions. We have identified four factors (nutrition, taste, economics, and brand loyalty) that many of us use to make a purchase. In reading class, many of you have had an opportunity to learn about the different propaganda techniques that are used in sales marketing. Let us review those quickly. We will spend a couple of days determining what actually influences your decisions when selecting three different products.

Method:
Discovery
Supervised individual activity
Lab

Learning Activity: Students will taste two different food samples in each category to determine their reasons for making a food choice. Using a score sheet, students will taste and rate the food samples according to the four criteria studied in class.

Resources: List propaganda techniques discussed in reading class, scoresheet, food samples

Evaluation: After tasting and marking their preferences, students will discuss their reasons for their selections.

Summary: Question and Answers
Often, many reasons determine our food choices. Sometimes the food choices are influenced by nutrition, taste, economics, or even brand loyalty. What influences you in selecting one cheese over another? If cost were not a factor, would your choice be different? Why or why not? How does nutritional labeling affect your choice of cheese? of milk?

What could be added to the package to give us more nutritional information? Which of the sodas tasted better to you? What part does taste play in making your decision?

Each student will sample two food items, given no other information. He will mark his scoresheet on taste alone. Then additional information will be added including nutritional labels, cost, and brand labels. Each time the student will mark his scoresheet to determine which item he would buy. (Use different colored pens for each criteria.)

	TASTE	NUTRITIONAL LABELING	COST	BRAND NAME
CHEESE #1 #2				
JUICE #1 #2				
SODA #1 #2				

LIFE MANAGEMENT SKILLS / READING

Vocational Unit: Communications

Topic: Apply principles of effective communication

Objective: Students will demonstrate ways to communicate effectively using both verbal and non-verbal means.

Introduction: Communication is the way people express themselves. Today we are going to explore various ways of getting our message across to another person.

Teacher leads brainstorming: Name some people who use communication skills and the ways they do that. Name some occupations that require effective communication skills.

Define: Verbal and Non-Verbal - Students will demonstrate different messages in both verbal and non-verbal ways (for example: "No", "sadness", "Yes", "I like you", "happiness", "I do not like being here").

Method:
Teacher lecture
Role play

Learning Activity: Have students brainstorm to explore some ways and times that we have problems in communicating. Divide class into groups of 4-5. Give each group a situation to role play. Students will demonstrate both effective and ineffective communication techniques.

Illustrate:
- tone of voice
- negative choice of words
- body language
- non-listening
- lack of interest

Note: If students are uncomfortable in role play, this activity can be accomplished through open class discussion.

LIFE MANAGEMENT SKILLS / READING

Resource: Written communication situations:

1. Teacher discussing grades with students.
2. Parents discussing child's study habits.
3. Employer relating job-related problems with workers.
4. Woman talking with babysitter about television watching during job.
5. Friends discussing a misunderstanding about a rumor.

List of Tips for Good Communication

Evaluation: Discuss with the class, after each group role plays their situations. Have students discuss possible choices of a better way to handle the situation.

Summary: Students will review by drawing up a list of Tips For Good Communication to be recorded on the chalkboard.

Optional Follow-up Activity: Step-by-step problem-solving

Optional Extension: Have students discuss methods of communication for persons who are visually or hearing impaired. Invite a "professional communicator" from a company such as GTE of AT&T or from a Toastmasters group. Ask them to discuss good communication techniques and perhaps how they personally learned/developed their skills.

LIFE MANAGEMENT SKILLS / READING

Vocational Unit: Recipes

Topic: Identifying the correct procedure to follow when using a recipe

Objective: Given a recipe, students will be required to apply correct cooking/baking methods and sequencing skills to successfully produce product.

Introduction: Earlier we have identified two types of written recipes (paragraph and listing). Today we will explore the importance of following the directions in the order in which they are given. Many of you have been studying sequencing in reading class and you know that following a recipe is a very good example of the importance of sequencing.

Method: Lab situation
One group does not follow directions (they are given only the list of ingredients).
Four groups follow either paragraph or listing-type recipe of the same food.

Learning Activity: All students will perform their tasks as directed earlier. One group will not have the directions. The other groups will follow correct sequencing of two different types of the same recipe.

Resources: Three different recipes for the same food, supplies, kitchen, and equipment

Evaluation: Students will sample the products of all groups and orally discuss the differences.

Summary: Students will be expected to answer questions relating to the different food items. The objective of the lesson is to point out the importance of following a recipe in the sequence it is given.

1. Why is following directions, in the order given, important?
2. When comparing the "paragraph" and the "listing" recipes, are there any differences in the taste or appearance of the products?
3. How does the product made without directions compare to the product made with directions?
4. What results do you see?
5. What taste differences are there? Why do you think this occurred?
6. Explain the importance of reading through a recipe before you start.

Additional discussion, time permitting, could identify other situations in which following directions is very important. For example:

1. Driving to a special location
2. Machine operator
3. Medication aide

Cheese Pretzels (List)

1 1/2	cups biscuit mix
1/2	cup milk
2	oz. shredded cheese
1	egg
	dash of salt

Combine biscuit mix, milk and shredded cheese to form soft ball. On lightly floured surface, roll dough into 8" X 12" rectangle; cut into 1" X 8" strips. Twist each strip into pretzel shape; place on greased baking sheet. Beat egg in small bowl; brush on pretzels. Sprinkle with salt. Bake at 400 degrees Fahrenheit for 20-25 minutes. Makes 12.

Cheese Pretzels (Paragraph)

Combine 1 1/2 cups biscuit mix, 1/2 cup milk and 2 oz. shredded cheese in a bowl and form a soft ball. On lightly floured surface, roll dough into an 8" X 12" rectangle; cut into 1" X 8" strip. Twist each strip into pretzel shape; place on greased baking sheet. Beat 1 egg in a small bowl and then brush on pretzels. Sprinkle with desired amount of salt. Bake at 400 degrees Fahrenheit for 20 to 25 minutes. Makes 12.

Cheese Pretzels (Activity)

1 1/2 cups biscuit mix
1/2 cup milk
2 oz. shredded cheese

Combine in bowl and mix until a soft ball is formed. Roll on floured surface into an 8" X 12" rectangle. Cut into 1" X 8" strips. Twist each strip into pretzel shape. Place on greased baking sheet

1 egg

Beat in small bowl and brush over tops of pretzels.

dash of salt

Sprinkle pretzels with salt. Bake at 400 degrees Fahrenheit for 20-25 minutes. Makes 12.

LIFE MANAGEMENT SKILLS / READING

Vocational Unit: Good Nutrition

Topic: Apply principles of good nutrition to lab

Objective: The students will be able to compare and contrast two identical products and determine their nutritional differences.

Introduction: In the past few days, we have studied the importance of being aware of health-wise decisions. We have been studying about the effects of cholesterol and sodium in our diet. We all enjoy eating ice cream and do not want to be told that it is not nutritionally good for us.

Today we will be able to see that we can eat ice cream, even though it is normally thought to be high in fat and sodium. We will make ice cream using a typical recipe that is high in calories (fats and sodium), and we will also make ice cream using substitutes for high cholesterol ingredients.

Learning Activity: In a lab situation, students will make two different recipes for tin can ice cream (three groups make regular, two groups make modified).

Resources: 2 recipes for tin can ice cream, page 260, food ingredients rating scale sheet, page 261, kitchen equipment, one 3-pound empty can with tight fitting cover, one 1-pound empty can with tight fitting cover, rock salt, oven mitts to cover while rolling ice cream.

Evaluation: Students will taste, then compare the taste of both types of ice cream.

Summary: We know there are some ingredients in foods that can be harmful to our health. We have been studying the effects of cholesterol and sodium in our diets. Why is it important for us to study the effects of food in our diets while we are young? How can high cholesterol and high sodium affect our health? Why is it important to identify the ingredients used to make a product?

With additional time available, class discussion can be expanded to include the importance of compare and contrast.

1. Purchases
2. What job to take
3. How to budget money

Tin Can Ice Cream

Regular Recipe

1 c. milk
1 egg
1 c. whipping cream
1/2 c. sugar
1/2 tsp. vanilla
nuts, fruit

Modified Recipe

1 c. low-fat milk
1 egg white
1 tsp. oil
1 c. skim evaporated milk
1/2 c. sugar
1/2 tsp. vanilla
nuts and fruit

Put all ingredients in a 1-pound coffee can with a tight-fitting plastic lid. Beat with whisk. Place lid on can. Place can with ingredients inside a 3-pound can with a tight-fitting plastic lid.

Pack crushed ice around the smaller can inside the larger one. Pour at least 3/4 c. rock salt evenly over ice. Place lid on 3-pound can. Roll back and forth on a table (cover with towel to muffle noise) for 10 minutes. Open outer can. Remove inner can with ingredients inside. Remove lid. Use a rubber spatula to stir mixture; scrape sides of can. Replace lid. Drain ice water from larger can. Insert smaller can; pack with more ice and salt. Roll back and forth for 10 more minutes. Makes about 3 cups.

ICE CREAM

FLAVOR	RATE	DESCRIBE THE *DIFFERENCES*
VANILLA		
MODIFIED VANILLA		
STRAWBERRY		
MODIFIED STRAWBERRY		
BANANA		
MODIFIED BANANA		

RATING SCALE: 1 = EXCELLENT 2 = GOOD 3 = POOR

READING / LIFE MANAGEMENT SKILLS

Academic Unit: Cause and effect -- characterization (Reading)

Vocational Unit: Positive self-image

Topic: Character traits contribute to the outcome of events.

Objective: Students will be able to identify how particular character traits eventually lead to certain results of friendship as well as to disaster.

Introduction: For the past several weeks, we have been studying the characters in the novel, Killing Mr. Griffin. We have also compared and contrasted several objects. Today we are going to combine these two skills and discuss the strengths and weaknesses of certain characters in the novel and how their traits lead to disaster.

Method: Discussion

Learning Activity: Students will discuss each individual character, stressing the character's strengths and weaknesses, and how his or her traits lead to certain results.

Students will be expected to note the above information in chart form as each individual character is studied. Example:

Character Name
  Strengths ==> Results
  Weaknesses ==> Results

Now have students check (✓) the traits that they see in themselves and star (*) those traits they wish they had.

Students will write a character trait paper describing in detail an individual character and the effects of his traits.

Resources: Killing Mr. Griffin, by Lois Duncan

Evaluation: Students' results on character trait paper describing, in writing, the characters' traits and results of those traits.

Summary: Role Play

Have several students choose a character to role play a chosen scene from the novel to show certain character traits that lead to the character's results.

Have students volunteer to role play individual characters and answer questions from the class acting as a panel or set-up a mock court proceeding.

Select defense and prosecuting attorneys. Spend some time on court room procedures and terminology such as "sustained", "over-ruled", "perjury", etc. A jury could be selected from another reading class, or in the same class, if the group has been split so that one part of the class has been studying another book. Ask another teacher or staff member to serve as judge. Each role play character should spend time gathering information for him/herself to use during the trial. This information could then be re-formatted for use as their character trait writing assignment.

Note: You may not wish to do all of these activities if time is a factor. These activities will take approximately 3-5 days.

READING / LIFE MANAGEMENT SKILLS

Academic Unit: Propaganda (Reading)

Vocational Unit: Food Labels

Topic: Identifying six techniques of propaganda and their influences on our buying habits in order to create educated consumers.

Objective: When shown videotapes of recorded commercials, students will be able to identify the six different types of propaganda 75% of the time.

Introduction: This past week in reading and homemaking, we have identified, through videotaped commercials, newspapers, and magazine advertisements, various types of propaganda to influence your purchasing decisions. Today we will show you a series of commercials and you will match each commercial with the proper propaganda technique used.

Have students list their favorite jeans, athletic shoes, places to eat, rock groups, shampoos, etc. Then ask them to rate these items on a scale of 0 to 5 by how much they are influenced by advertisements for these items. Later, compile a list of items and discuss why so many advertisements are similar.

Method: Whole Group Activity -- Question/Answer

Learning Activity: Students will view four practice tapes and as a class discuss and identify the critical details of each.

Students will view the videotape and identify the propaganda technique being used in each commercial.

Resources: Teacher: make videotape of numerous commercials representing the appropriate propaganda technique.

Sample Questions:

1. Which commercial was an example of "plain folks" propaganda?
2. Tell what you saw in the commercial that made you think it was an example of that technique.
3. Have you seen other commercials that were examples of this technique?
4. Do you think one of these techniques is more effective with a certain age group?
5. Have you heard a politician use propaganda techniques?

Optional Expansion: Have students write to request the nutritional information of their favorite food from their favorite restaurant. Then, using what they have learned from this lesson and the home economics class, put together a healthier substitute meal and decide how to advertise it.

READING / LIFE MANAGEMENT SKILLS

Academic Unit: Communication (Reading)

Vocational Unit: Communication

Topic: Applying principles for effective communication

Objective: Students will be able to develop listening skills.

Introduction: In homemaking, you discussed different people that have found communication skills necessary. Let's review those skills and discuss the related jobs requiring these skills.

Sample Questions:

1. How does listening help communication?
2. Describe what happens when you do not listen.
3. List some jobs in which listening is required.
4. Why are listening skills so important in our everyday lives as well as in our jobs?

Method: Supervised individual activity

Learning Activity: Guide student through listening activity, and discuss how listening affects communication. Important: wait - give adequate time for slower thinkers to participate.

Resources: Listening Activity on page 268

Evaluation: Students will assess their own auditory learning skills.

READING / LIFE MANAGEMENT SKILLS

Summary: Sample Questions:

1. How does listening help communication?
2. Describe what happens when you do not listen.
3. List some jobs in which listening is important.
4. Why are listening skills so important in our everyday lives as well as in our daily jobs?

Variations: To accommodate those students with a visual strength, consider these suggestions.

Show colored blocks or shapes for 5 seconds and then cover them up. Next, ask students to recall the sequence or to color the correct sequence of shapes on their papers.

Each student should have construction paper squares (size: 2 X 2") in five colors: red, yellow, blue, green, and white.

Teacher will list the colors, pausing 1 second between color names. Students will recreate sequence using construction paper squares on their desks.

Note: Teacher should begin with two-color sequences and build to five.

Optional Extension: Have students write their own sentences and call on their peers for answers.

REPRODUCIBLE PAGE

HEAR YE! A Listening Activity for the Middle Grades

by Flora Joy, Illustrated by Pat Harroll

Listening is a major communication skill which receives little emphasis in most classrooms. It is, however, more widely used by the majority of learners than the skills of speaking, reading, and writing. Since listening ability generally does not improve without instruction, classroom experiences in listening training are a must!

"Hear Ye!" may be used periodically when only a few minutes of classroom time can be spared. Its five phases gradually increase in difficulty. Each phase is explained below and has several sentences for classroom practice.

PHASE ONE

Phase one involves having the students listen to a sentence which is read aloud by the instructor. **The listeners combine the FIRST LETTER of each word in that sentence. This will form a new word. They then say the word aloud.** Note that listeners should not WRITE any of the letters or words during any phase of this activity.

1. Invite Sam. (Listeners will say the word **is.**)
2. Always talk. (at)
3. Can a gnat eat? (cage)
4. Look at Clyde eat. (lace)
5. Bandage a cut knee. (back)
6. Ride over a desert. (road)
7. Walk into the house. (with)
8. Find unlisted numbers. (fun)
9. Entertain all ranchers. (ear)
10. Knowledge is tremendous. (kit)
11. She treated a cut knee. (stack)
12. Cindy lost a small shoe. (class)
13. Could Larry or Clint knit? (clock)
14. Never order raw, tough hamburgers. (north)
15. Everyone noticed John's only yacht. (enjoy)
16. Roger eventually won a real diamond. (reward)
17. Charlotte often finds fun easily enough. (coffee)
18. She'll call if everybody noticed Craig's escape. (science)
19. Rare engines are designed in Netherland gymnasiums. (reading)
20. Chad's houses are looking lovely, even near George's interesting new garage. (challenging)

PHASE TWO

During phase one the slower listeners were interrupted by hearing the answers spoken aloud by others. Phase two eliminates this possibility. During this phase sentences are also read by the instructor. **The FIRST LETTER of each word in each sentence will spell a one-word imperative sentence. Every student will pantomime this command without saying the word aloud.**

1. You are weak now. (Listeners will yawn.)
2. Will I need keys? (wink)
3. Nobody owns Dodges. (nod)
4. Everyone always tries. (eat)
5. Martin offered a number. (moan)
6. Sam's kennel is priceless. (skip)
7. Sally's mother is like Edna. (smile)
8. Send notices on return trips. (snort)
9. Look over Victoria's equipment. (love)
10. George received only a numeral. (groan)
11. Start talking over major points. (stomp)
12. Slowly trot around Nancy's desk. (stand)
13. Stop taking Orville's only plane. (stoop)
14. Will Richard involve the enemies? (write)
15. This harrassment is not knowledge. (think)
16. Teddy once untangled Clara's hair. (touch)
17. Louise is saving the eight novels. (listen)
18. Sam tromped around mother's plants. (stamp)
19. These will interest several tourists. (twist)
20. George, I guess Gary likes everybody. (giggle)

PHASE THREE

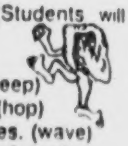
During this phase the listeners combine the **LAST LETTER of each word to form a one-word imperative sentence. They pantomime this command.**

1. Whip a cat. (Students will **pat.**)
2. Is she slow? (sew)
3. Ouch, I hurt! (hit)

4. Leave a list. (eat)
5. Crochet a map. (tap)
6. Roger, you learn. (run)
7. Hit a small tack. (talk)
8. Rob, I hurt Steve. (bite)
9. Pick ski resorts, Charles. (kiss)
10. Herb Rockwell, I can kick! (blink)

PHASE FOUR

During this phase the listeners combine **the FIRST SOUND of each word to form a one-word imperative sentence. They pantomime this command.**



1. Men only know. (Students will **moan.**)
2. Cars run idly. (cry)
3. We eat peanuts. (weep)
4. He offers pennies. (hop)
5. Wilma ate vegetables. (wave)
6. Young elephants loaf. (yell)
7. Sue likes evil people. (sleep)
8. We always communicate. (walk)
9. Stores never open regularly. (snore)
10. Danny asked Nancy something. (dance)

PHASE FIVE

During this phase the listeners combine **the LAST SOUND of each word to form a one-word imperative sentence. They pantomime this command.** Notice the differences in the *sounds* and the *letters*, as demonstrated in the first sentence.

1. Pick a plant. (Students will pantomime **cut**, not **cat**).
2. Cheer a man. (run)
3. Whip Paul today. (play)
4. Will he learn? (lean)
5. Jeff, I hurt! (fight)
6. Ann, free Samuel. (kneel)
7. Will Donna live? (love)
8. Look, Ma, Sheriff! (cough)
9. Scientists haul happy sheep. (sleep)
10. Cats like their tasty cream. (scream)

Following the completion of the samples provided above, students may write additional sentences which can be used for any of these five phases. These sentences may be collected and used for future classroom experiences with this activity.

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READING / LIFE MANAGEMENT SKILLS

Academic Unit: Sequential Order -- Summarization (Reading)

Vocational Unit: Recipes

Topic: Cartoons

Objective: After putting several cartoon strips in the correct sequence as a class, students will be able to draw their own version of a cartoon and have others put it in the correct sequence three out of four times.

Introduction: Sample Questions:

1. Why is sequencing so important?
2. In what day to day events do we use sequencing?
3. Why are the use of sequential words so important?

We have worked on a process paper in which we have listed the steps to a particular process. We have also studied sequential words that help to clarify the process.

Review sequential words.

Method: Supervised individual activity

Learning Activity: Given cartoon windows on the overhead, discuss the correct sequence.

Given copies of several different cartoons, the class will individually arrange each of these in correct sequential order.

Students will create their own cartoons, and then exchange them with each other and arrange them in correct sequential order.

Resources: Photocopies of several different cartoon strips

Cut strips apart, laminate and number correct sequence on back for self-checking. Store in envelopes.

Evaluation: During class discussions, students will be observed arranging cartoon windows in correct sequence. Students will then be expected to create their own cartoon for others to correctly arrange. You may also provide magazines to use as a cut-and-paste method of the drawings to accommodate those students who do not feel comfortable drawing.

Summary: Sample Questions:

1. Why is sequencing so important?
2. In what day-to-day events do you use sequencing?
3. Why are the use of sequential words so important?

READING / LIFE MANAGEMENT SKILLS

Academic Unit: Compare and contrast (Reading)

Vocational Unit: Good nutrition

Topic: Composition showing likenesses and differences

Objective: After discussion of several visuals showing the likenesses and differences of various objects and discussion of the formation of a well-developed paper, students will be able to satisfactorily write a composition that explains the likenesses and differences of two simple objects.

Introduction: In homemaking, you have compared different types of foods before making a choice. We have also compared and contrasted topics in reading. Let's discuss the activities accomplished in order to achieve the same goal.

Sample Questions:

1. Define similarity (comparison).
2. Define contrast.
3. Why is it necessary to use detail?
4. Discuss the similarities and differences mentioned in class.
5. How would this skill be helpful in real life? (Be sure to stress the decision making process adults use in purchasing cars, homes, lease agreements, or when entering into a contract.)

This past week we have been talking about the similarities and differences in various objects. Today I want to compare another set of objects, not only verbally, but also in writing.

Method:
Discussion
Supervised individual activity
Use "Comparison/Contrast Practice" transparency, page 274.

READING / LIFE MANAGEMENT SKILLS

Learning Activity: Refer to "Comparison/Contrast Diagram", page 275.

Shown a ballpoint pen and a pencil, have students think of some ways that a pencil and a ballpoint pen are similar. Jot them down. Use the following format:

A. Appearance (2 or 3 items)
B. Purpose or use
C. Other (for example, composition--materials from which the pen or pencil are made)

Have students look at given description of fork and spoon, paying special attention to the noted similarities. Have students mark the passage that has the better detail.

Discuss characteristics that make the chosen passage better.

Describe the way that a pen and pencil look similar. Try to describe the similarities in as much detail as the better description of the spoon and fork.

Now think of some ways that a pencil is different from a pen. Jot down some of the features or characteristics that a pencil has but a pen does not have. Jot these down.

Now think of features that a pen possesses, but a pencil does not have. Jot these down too.

Now use the gathered information and write a composition in which you explain how a pen and a pencil are alike and how they are different. Use the five-paragraph format discussed earlier this week in class.

Resources: "Comparison/Contrast Practice" transparency, page 274
"Comparison/Contrast Diagram" transparency, page 275
pen and pencil, apple and orange, and any other items used in exercise to practice making comparisons/contrasts.

Evaluation: Students' performance on comparison/contrast paper.

READING / LIFE MANAGEMENT SKILLS

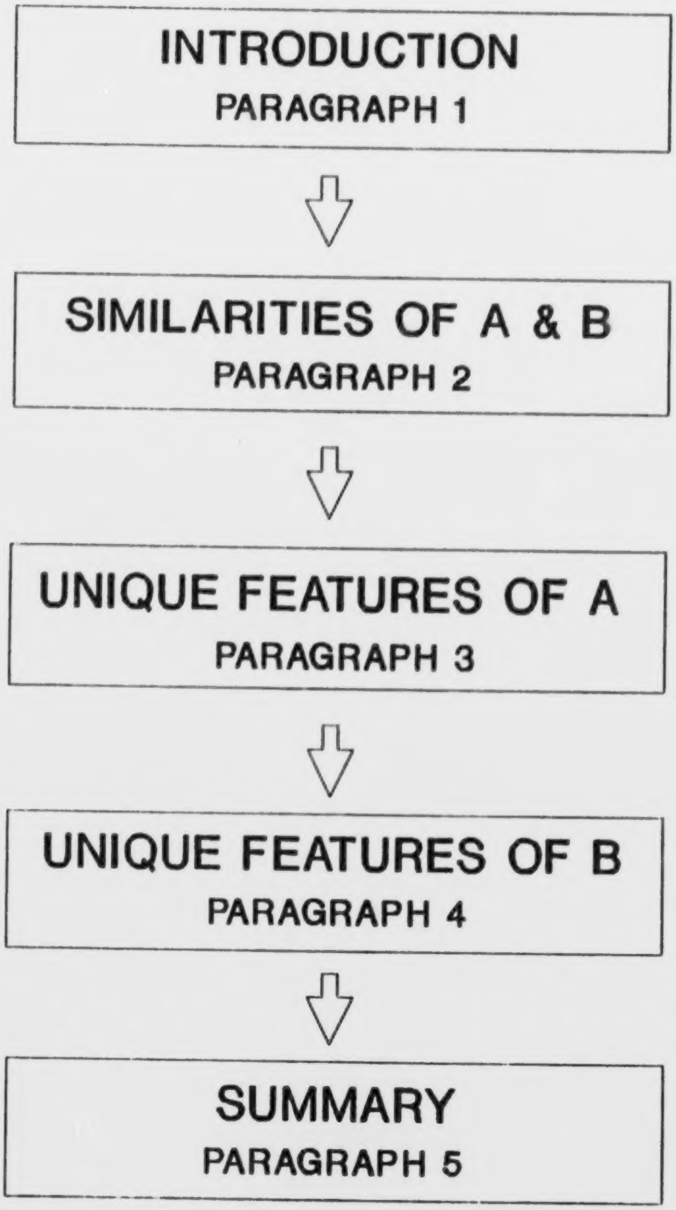
Summary:

Sample Questions:

1. Define similarity (comparison).
2. Define contrast.
3. Why is it necessary to use detail?
4. Discuss the similarities and differences mentioned in class.
5. How would this skill be helpful in real life?

COMPARE	CONTRAST	
Apples & Oranges	Apples	Oranges
Pen & Pencil	Pen	Pencil
Magazine & Newspaper	Magazine	Newspaper
Dog & Cat	Dog	Cat
Knight in "The Knight & the Naiad of the Lake" and knight in "Adam of the Road"	Knight in "The Knight and the Naiad of the Lake"	Knight in "Adam of the Road"

COMPARISON/CONTRAST DIAGRAM



INTRODUCTION
PARAGRAPH 1

SIMILARITIES OF A & B
PARAGRAPH 2

UNIQUE FEATURES OF A
PARAGRAPH 3

UNIQUE FEATURES OF B
PARAGRAPH 4

SUMMARY
PARAGRAPH 5

EARTH SCIENCE / HOME ECONOMICS

INVESTIGATING CAREERS IN EARTH SCIENCE

Academic Unit:

Any unit, preferably after a number of topics have been covered and before the last grading period.

Lesson Topic: Careers in Earth Science

Objective:

The students will investigate a specific job description as a possible career choice in the field of Earth Science.

Essential Element Earth Science

1. The students will gain experience in oral and written communication of data in appropriate form.
2. Application of science in daily life.

Essential Element Life Management Skills

1. To apply principles of effective communications.

Resources/Special Arrangements:

1. Most Earth Science textbooks have specific sections devoted to career investigations about various Earth Science job related fields.
2. Attached is a list.

Total time allotted -- 2 class periods

Introduction (5 minutes):

Students often wonder why studying science is important in their lives. They do not realize how many occupations may be science related. This activity should help students to better understand the relevance of science in their lives. Middle school students will soon be selecting their high school courses. They may gain some insight from this activity to choose the type of high school science courses that might help prepare them for the future.

Method (40 minutes) -- day 1 and continue into day 2 if needed:

Ask the students to suggest possible Earth Science related jobs (careers) and list on chalkboard. (They may use their textbooks for ideas.)

Teacher may review attached list of science careers and mailing addresses.

Have students choose a career area that they are most interested in, or teachers may assign topics, and explain that they will work in groups of 3 or 4 to compose an appropriate letter to request information on that area. (It might be beneficial to review the components of a good business letter at this point.) Each student will compose an individual letter requesting the information. Then, using the individual letters, each group will compose and edit a final letter to be mailed.

Summary (5 minutes):

When students receive answers to their requests for information, they may post it on a bulletin board prepared for this purpose. Students could be involved in designing a special bulletin board. A future date may be set aside for a short oral report based on the information received by students.

Evaluation:

Individual and/or group grades may be given for letters/oral reports.

Teachers may want to photocopy group letters before mailing them and collect individual letters for grading purposes.

Additional Suggestions:

This activity might also include writing to a local weather forecaster, air-traffic controller (c/o major airport director), and the local branch of the Environmental Protection Agency (EPA) to request speakers to visit classes and explain their jobs.

EARTH SCIENCE / HOME ECONOMICS

Weather Technician/ Climatologist
American Meteorological Society
45 Beacon Street
Boston, Massachusetts 02108

Air-Conditioning Mechanic
Air-Conditioning and Refrigeration Institute
1815 North Fort Myer Drive
Arlington, Virginia 22209

Heavy-Equipment Operator
Associated Builders & Contractors
729 15th Street NW
Washington, DC 20005

International Union of Operating Engineers
1125 17th Street NW
Washington, DC 20036

Geographer
Association of American Geographers
1710 16th Street NW
Washington, DC 20009

Petrologist/Refinery Operator
Society of Petroleum Engineers
P.O. Box 833836
Richardson, Texas 75083

Computer Operator
Local Junior Colleges
Computer Schools
Armed Forces

Aerospace Engineer
Aerospace Education Assoc.
1810 Michael Faraday Drive
Suite 101
Reston, VA 22090

Civil Engineering Technician
Geoscience & Remote Sensing Society (GRSS)
American Society of Civil Engineers
345 East 47th Street
New York, NY 10017

Construction Inspector
International Conference of Building Officials
5360 South Workman Mill Road
Whittier, California 90601

Southern Building Code Congress International, Inc.
900 Montclair Road
Birmingham, Alabama 35213

Chemical Laboratory Technician
American Chemical Society
1155 16th Street NW
Washington, DC 20036

Soil Scientist
American Society of Agronomy
677 South Segoe Road
Madison, Wisconsin 53711

Volcanologist
American Geophysical Union
2000 FLorida Avenue NW
Washington, DC 20009

International Association of Zoo Educators
c/o Office of Education
National Zoological Park
Smithsonian Institution
Washington, D.C. 20008

Range Manager
U.S. Department of Agriculture
Forest Service
P.O. Box 2417
Washington, DC 20013

U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 2890
Washington, DC 20013

Bureau of Land Management
Denver Service Center
Federal Center Building 50
Denver, Colorado 80225

Society for Range Management
2760 West 5th Avenue
Denver, Colorado 80204

Marine Technology Society
1825 K Street N.W.
Suite 203
Washington, D.C. 20036

Geology
American Society of Earth
Sciences: Education
Division
123 Main Street
Denver, CO 80213

American Association of
Petroleum Geologists
P.O. Box 979
Tulsa, OK 74101

Paleontology
International Paleontological
Association
c/o William A. Oliver, Jr.
U.S. Geological Survey
E-305 Natural History Building
Smithsonian Institution
Washington, D.C. 20560

Sanitary Engineer
American Sociaty of Sanitary
Engineering (ASSE)
P.O. Box 40362
Bay Village, OH 44140

Water Resources
Association of Ground Water
Scientists and Engineers
6375 Riverside Drive
Dublin, OH 43017

Geographer/Civil Engineering Technician
Association of American Geographers
1710 16th Street NW
Washington, DC 20009

Earth Scientist/Petroleum Geologist/Hydrologist/Seismologist/Marine Geologist
American Geological Institute
4220 King Street
Alexandria, VA 22302

Cartographer
American Congress on Surveying and Mapping
210 Little Falls Street
Falls Church, VA 22046

Astronomer
Dr. Harry Shipman
Education Officer
American Astronomical Society
University of Delaware
Newark, Delaware 19711
(send 25 cents for postage)

American Astronomical Society
c/o Dr. Peter B. Boyce
2000 Florida Ave., N.W., #300
Washington, D.C. 20009

Astronomer - Instrumentation Technician
The American Society of
Mechanical Engineers
345 East 47th Street
New York, NY 10017

Geoscience Librarian
Special Libraries Association
1700 18th Street, N.W.
Washington, D.C. 20009

Weather Forecaster
National Weather Service
Personnel Section
Gramax Building
8060 13th Street
Silver Springs, MD 20910

EARTH SCIENCE / HOME ECONOMICS

RESOURCES OF THE OCEAN

Academic Unit: Oceanography

Lesson Topic: Resources of the Ocean

Objective:

The students will recognize the importance of farming the sea as a potential source of nutrients with an emphasis on algae.

Essential Element - Earth Science

1. Application of science in daily life.
2. The use of skills in drawing logical inferences, predicting outcomes, and forming generalized statements.

Essential Element - Life Management Skills

1. The students will apply principles of good nutrition.
2. The students will apply principles of successful management and conservation of resources.

Resources/Special Arrangements:

1. Textbook/library books about resources of the sea.
2. Chinese or Japanese cookbooks
3. Posterboard
4. Markers
5. Optional: actual samples of dried, canned, or preserved seaweed, or other edible sea plant foods

Introduction (15 minutes):

Have a student(s) read the section from the class text on ocean-renewable resources orally. Discuss the pros and cons of commercial sea farming. List some of the products that are commonly used that come from the sea, for example:

1. fish
2. shell-fish (clams, oysters, shrimp, lobster)
3. seaweed (kelp)
4. algae (from which algin comes from -- used as thickening agent in ice cream and creamy salad dressings)
5. fish flour

EARTH SCIENCE / HOME ECONOMICS

Method/Learning Activity (30 minutes):

Divide students into heterogeneous groups of 3 or 4. Have them read "A Diner's Delight" menu, page 283, and discuss the questions in groups. Students will answer questions individually.

Summary (5 minutes):

The ocean's of the world may supply the food for the future generations of mankind. This brings to light another problem which we must also consider -- man's responsibility for keeping the ocean water clean.

Evaluation:

Collect question sheets for grading. Have students hang posters for display. Allow time the next day for presentation of commercials.

Optional Expansion:

Have students use oriental cookbooks to look up recipes that use ingredients from the Diner's Delight list, or any other sea plant food ingredients.

Have students make up their own menus.

EARTH SCIENCE / HOME ECONOMICS

A DINER'S DELIGHT??
The Menu

Appetisers
Fried sweet kelp chips
Porphyra chips
Toasted Kim
Shanghai spring rolls
Five-spice smelts

Soups
Irish moss soup
Alaria vegetable soup
Kombu dashi
Porphyra soup
Dulse miso soup
Hai dai sweet soup
Ushio Jiru

Salads
Kantan salad
Dulse salad
Sea lettuce salad
Sea grape salad
Steamed sea palm

Entrees
Sushimaki
Mixed sea vegetable tempura with shrimp cakes
Laminaria casserole
Baked dulse salmon loaf
Alaria vegetable stew
Buddha's delight
Kasunoko komba
Laminaria Stew
Hyikial burro
Stuffed Porphyra fronds

Side Dishes
Boiled Alaria
Sauteed Ascophyllum
Kisani kombu
Stir-fried Irish moss
Hygiki saute
Sea vegetable Taiwan
Wakame in sweet and sour sauce

Desserts
Irish moss mouse
Homemade yokan
Irish moss blancmange pie
Tokoroten

Beverages
Hot dulse lemonade
Bladderwrack tea
Yogurt drink
Korean spice tea

This menu would delight diners in Japan, China, the Philippines, Indonesia, and the Hawaiian Islands. In Asian countries, sea vegetables are part of the daily diet. Algae show up in basic cooking and cuisine from the subarctic to the subtropics around the world.

1. Would you eat at a restaurant with this menu? Explain.

2. Could you live in Japan and eat sea vegetables?

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3. How would you explain the differences between the way you think of algae and the way Asian countries use algae as food?

4. Why is algae a part of every meal for most people in Japan?

5. What effect do you think advertising would have in encouraging people to eat algae or sea vegetables like people in the Asian countries?

These sea vegetables are marine alga. They are among the most nutritious plants on earth. The nutrients in seawater are constantly renewed by nature and the plants themselves have the ability to concentrate elements present in the surrounding waters, several thousand times. Algae are an excellent food source of vitamins and other nutrients. Some algae have as much vitamin C as lemons; far more vitamin A than chicken eggs or liver; and a thousand times more vitamin D than cod liver oil. The proportion of protein in algae may be as much as 25% of the dry weight. The number of calories and level of cholesterol are very low. All species of algae are rich in minerals and essential trace elements. One tablespoon of cooked higiki, a Brown alga, has about the same amount of calcium as one glass of whole milk. Some species contain as much iron as in whole wheat.

The algal flavors are not salty or fishy. Some are beanlike, nutlike or even like celery or grapes.

EARTH SCIENCE / HOME ECONOMICS

1. After reading about the nutrition in algae (sea vegetables) would you consider eating them? Explain.

2. List the advantages of farming the sea.

3. Compare and contrast a sea garden and a land garden.

4. What problems would be involved in farming the sea?

5. Create a radio/T.V. commercial or an ad for a magazine (on poster board) for a new algae-based breakfast cereal. Suggest a singing jingle (rapping).

EARTH SCIENCE / HOME ECONOMICS

ASTRONOMY IN THE MARKETPLACE

Academic Unit: Astronomy

Lesson Topic: Astronomical Terms

Objective:

1. The student will recognize that astronomy has influence outside the scientific area.
2. The student will increase familiarity with astronomical terms.
3. To promote creative thinking skills of students.

Essential Element - Earth Science

1. Experience in oral and written communication of data in appropriate form.
2. Application of science in daily life.

Essential Element - Life Management Skills

1. To apply principles of effective communication.
2. Recognize good design and construction.

Resources/Special Arrangements:

1. Milky Way and Mars candy bars or wrappers, pictures of automobiles (Mercury Comet, Ford Taurus, Chevrolet Nova, Ford Galaxy), Comet Cleanser, etc.
2. Newspapers, magazines and old telephone directories
3. Colored paper
4. Markers
5. Posterboard

Introduction (10 minutes):

Many products we use on a daily basis are named after astronomical objects. For example, Comet Cleaners, Pulsar watches, Milky Way and Mars candy bars (use pictures and wrappers to illustrate your examples). Discuss how people have always been fascinated with astronomical objects: planets, stars, the moon. Have students give a few examples and list on board.

Method/Learning Activity:

Part 1 (15 minutes)

Assign heterogeneous groups of students (3-4) to look through newspapers, magazines, telephone directories, etc. to find products and business names that were astronomically inspired. Each group will compile a list (you will have 15 minutes to make up a your list). After the lists have been created, discuss what the businesses are trying to convey to the public by using these astronomical names. For example: What images do the names Chevy Nova or Mercury Comet convey?

Part 2 (20 minutes and day 2)

Each group will create their own astronomically named product (breakfast cereal, athletic shoe, beverage, soap, automobile, etc.). They will create a name, an ad (poster), and a package for the product or a radio/T.V. commercial to present to the class.

Summary (5 minutes):

Using examples of student's products, point out a positive attribute for each of them.

Evaluation:

The group will grade or the teacher may informally ask each student a question about his/her group's product for an individual grade. Class may vote on three of the best products and extra points will be awarded to those groups.

Optional Expansion:

Videotape the students' commercials. This encourages better preparation on the part of the students, and gives them the opportunity to further expand this unit by communicating with professional camera operators in the community, in the school district, or by mail.

Reference:
Schatz, Dennis. "Astronomy in the Marketplace", *The Universe in the Classroom*, The Astronomical Society of the Pacific, San Francisco, California, Spring 1987.

EARTH SCIENCE / HOME ECONOMICS

MOVEMENT OF THE EARTH'S CRUST/NUTRITION

Academic Unit: Geology

Lesson Topic: Faulting and folding using the peanut butter and jelly sandwich technique.

Objective:

The students will be able to apply the principles of good nutrition while relating the age of a series of sedimentary rock layers to the concept of folding and faulting.

Specific Objectives:

1. The students will determine the age relationships among a series of sedimentary rocks.
2. The students will demonstrate how sedimentary rocks will be folded and faulted.
3. The students will be able to state the nutritional value of peanut butter, bread, and jelly.

Resources/Special Arrangements:

Each group of two will need:

1. paper plate
2. 1 slice of white bread
3. 1 slice of light whole wheat bread
4. 1 slice of dark whole wheat bread
5. 1 knife and/or tongue depressor
6. 2 scoops of grape jelly in a small paper container
7. 2 scoops of chunky peanut butter

Introduction (5 minutes):

-- Today everyone is going to make a sandwich! A peanut butter and jelly sandwich.

-- Can someone tell us what nutrients are in peanut butter? (incomplete protein)

-- Bread? (starches, carbohydrates for quick energy; incomplete protein)

-- Jelly? (sugar, carbohydrates)

- Why is some bread white and the other dark? (main reason is the amount of bran in the flour that is used for the baking of bread)
- We will think of the sandwich material as being rock material. In order for everyone to relate their sandwich to the geologic ideas, all the sandwiches must be made in the same

Method/Learning Activity (35 minutes):

Lab:

1. Instruct each student to wash his/her hands.
2. Distribute the materials to each student.
3. Instruct the students to follow the laboratory sheet.

Summary (5 minutes):

- Students, today in our lab activity, we made models of various earth movements.
- What materials did we use for our models? (peanut butter, jelly and bread)
- Why do you think we used these materials? (cheap, available, and nutritious)

Evaluation (5 minutes):

For the remaining part of the class time, answer the following questions:

1. What are the main nutrients in peanut butter? Jelly? Bread?
2. What is the Law of Superposition?
3. How do the ages of rocks in the center of an eroded anticline differ from those of an eroded syncline?
4. What type of relative movement occurs in a vertical fault? In a lateral fault?

EARTH SCIENCE / HOME ECONOMICS

1. Below are some rock names. After these names, write the name of the kind of sandwich material which seems to fit best.

   White sandstone -

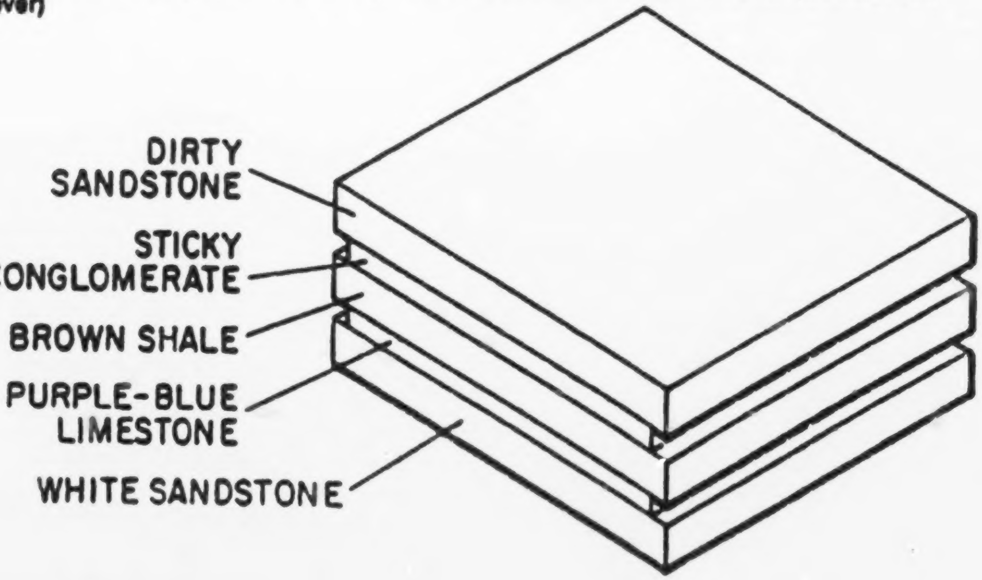
   Dirty sandstone -

   Brown shale -

   Purple-blue limestone -

   Sticky conglomerate -

2. Put the white sandstone on the paper plate and spread onto it the purple-blue limestone, place the brown shale on top of the limestone. Spread the sticky conglomerate on top of the brown shale. Put the dirty sandstone on top. Your sandwich should look like this. (Do not turn it over)



3. Answer these questions:

   A. Assuming it took about 5 minutes to build the sandwich, which is the oldest layer? Why?

   B. Which is the youngest layer? Why?

   C. What is the relative age of the brown shale layer?

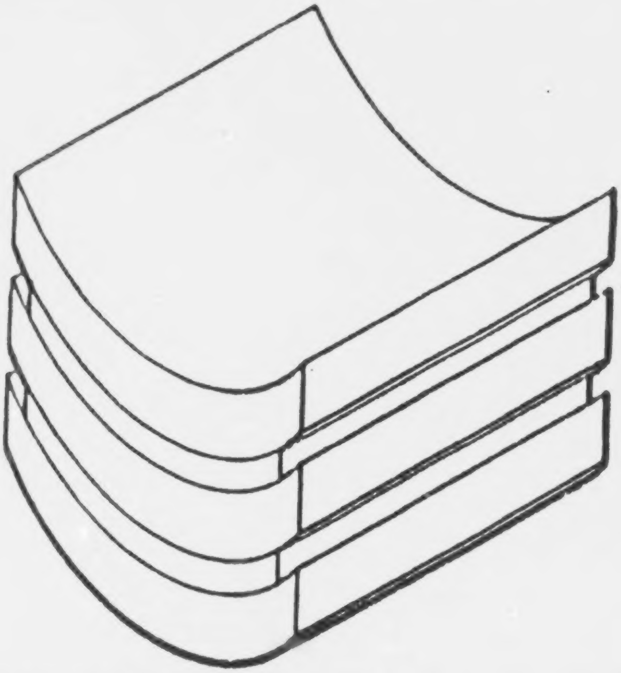
   D. If a person spent 5 minutes making the sandwich but worked slowly at the start and worked faster at the end, could the age of the brown shale be exactly 2 1/2 minutes younger than the white sandstone? Why?

E. Remembering that the rate of building may vary greatly, how could the age of the brown shale be described most accurately?

F. In summary, write a general rule for the age of a given layer. Assume that (1) the layers were deposited in order, one after the other, and (2) the layers have not been turned over,

G. Write here the name of the law which states the age relations of rocks in a sedimentary series. (Your teacher may furnish this name for you.)

4. Gently fold your sandwich to form a trough or valley. It should look like the figure below. In geology, the structure is called a SYNCLINE.



If you tilt your folded sandwich so the the valley dips either away from you or towards you, it is a model of a SYNCLINE.

If you ate all the high parts of the folded sandwich representing a syncline, would the rock in the center be older or younger than the rock on either side?

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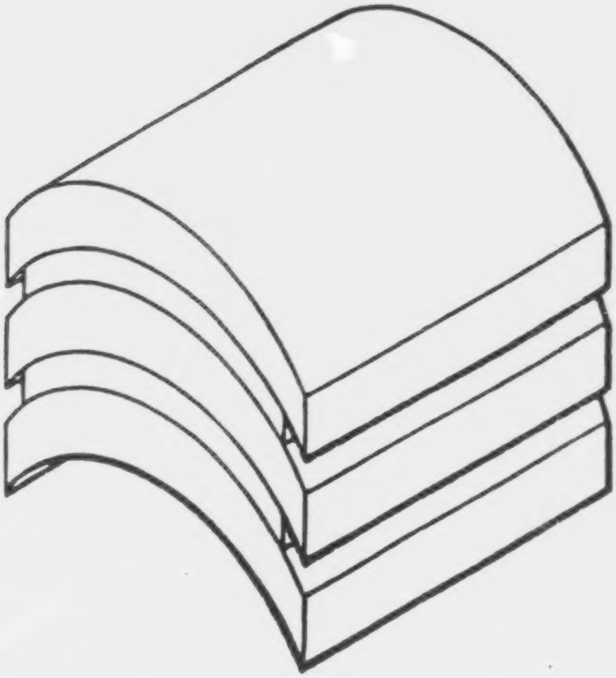
5. Gently fold your sandwich to form a ridge or elongate hill. It should look like the figure below. In geology, this structure is called an ANTICLINE.

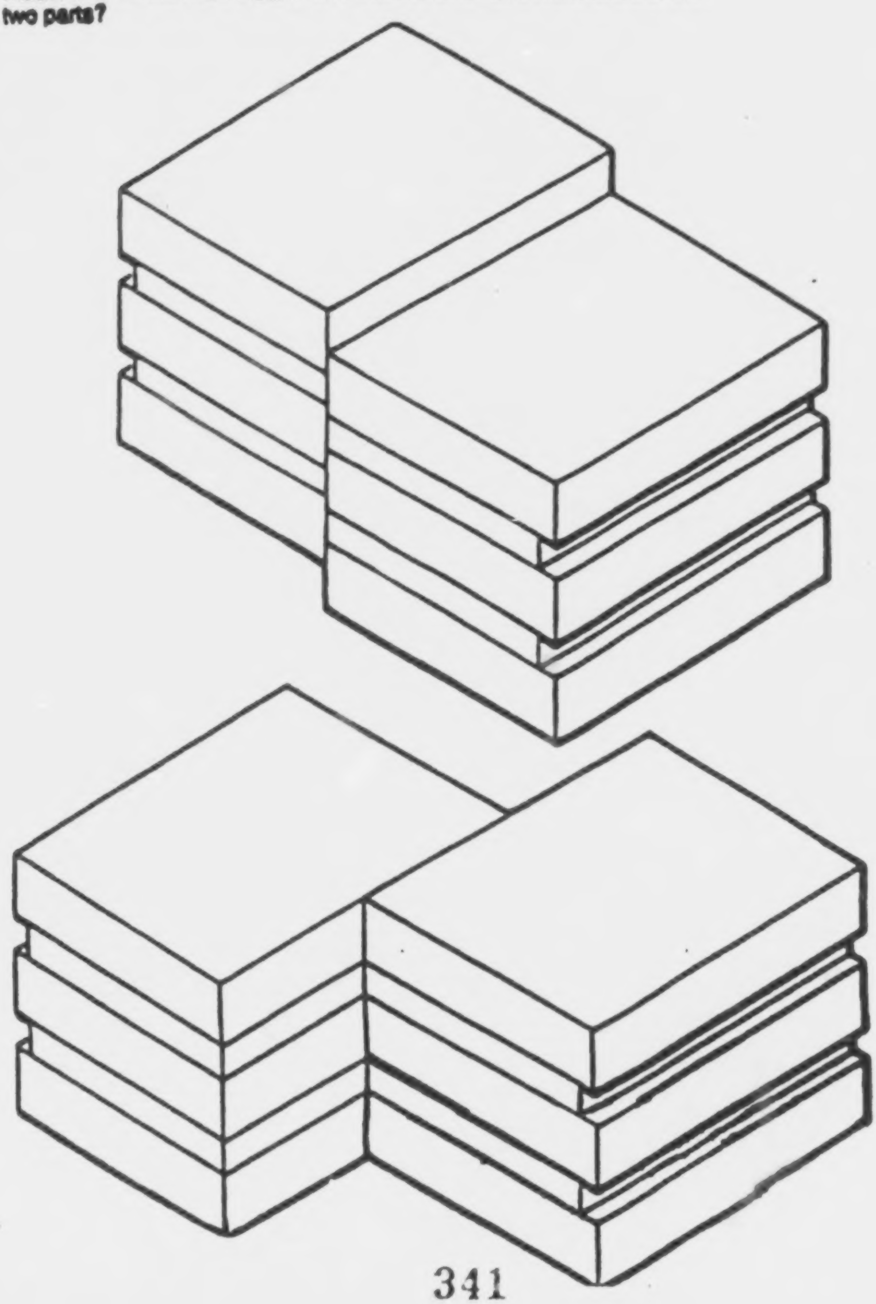


A. If you ate all the high parts of the folded sandwich representing an anticline, would the rock in the center be older or younger than the rock on either side?

6. Cut your sandwich in half with a knife

   A. If you hold the two pieces as shown in the diagram below, this is a model of a VERTICAL FAULT. What was the relative movement of the two parts?

   B. If you hold the two pieces as shown in the diagram below, this is a model of a LATERAL FAULT. What was the relative movement of the two parts?



EARTH SCIENCE / HOME ECONOMICS

TEACHER'S ANSWER SHEETS

1. Below are some rock names. After these names, write the name of the kind of sandwich material which seems to fit best.

White sandstone -

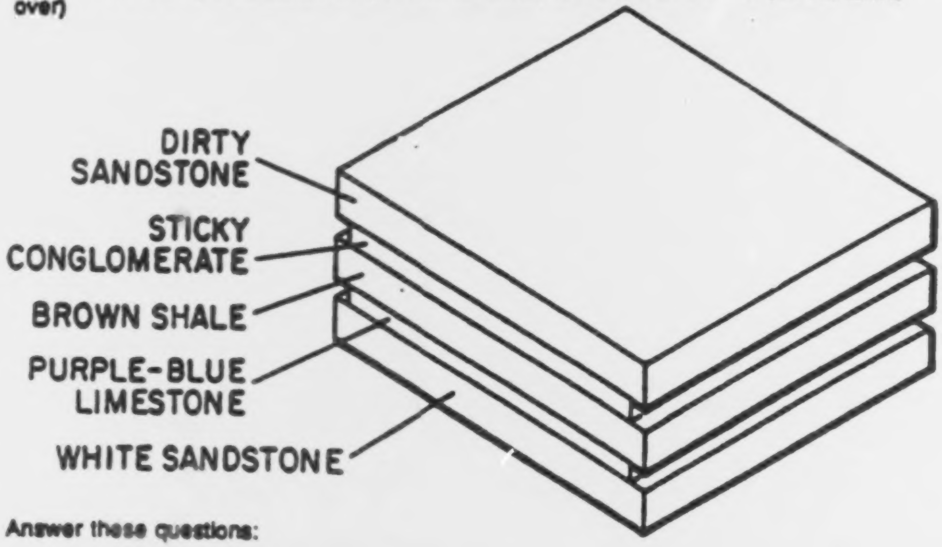
Dirty sandstone -

Brown shale -

Purple-blue limestone -

Sticky conglomerate -

2. Put the white sandstone on the paper plate and spread onto it the purple-blue limestone, place the brown shale on top of the limestone. Spread the sticky conglomerate on top of the brown shale. Put the dirty sandstone on top. Your sandwich should look like this. (Do not turn it over)



3. Answer these questions:

A. Assuming it took about 5 minutes to build the sandwich, which is the oldest layer? Why?

Answer: The white sandstone because it was put down first. It is on the bottom; everything else came after it.

B. Which is the youngest layer? Why?

Answer: The dirty sandstone is the youngest because it was put on top and was the last layer to be added.

C. What is the relative age of the brown shale layer?

Answer: It is between the age of the dirty sandstone and the white sandstone because it is in the middle.

D. If a person spent 5 minutes making the sandwich but worked slowly at the start and worked faster at the end, could the age of the brown shale be exactly 2 1/2 minutes younger than the white sandstone? Why?

Answer: No. The speed of building was not the same. It might be three minutes younger because the person worked slower at the beginning.

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E. Remembering that the rate of building may vary greatly, how could the age of the brown shale be described most accurately?

Answer: The brown shale is younger than the layer below it (the purple-blue limestone) and is older than the layer above it (the sticky conglomerate).

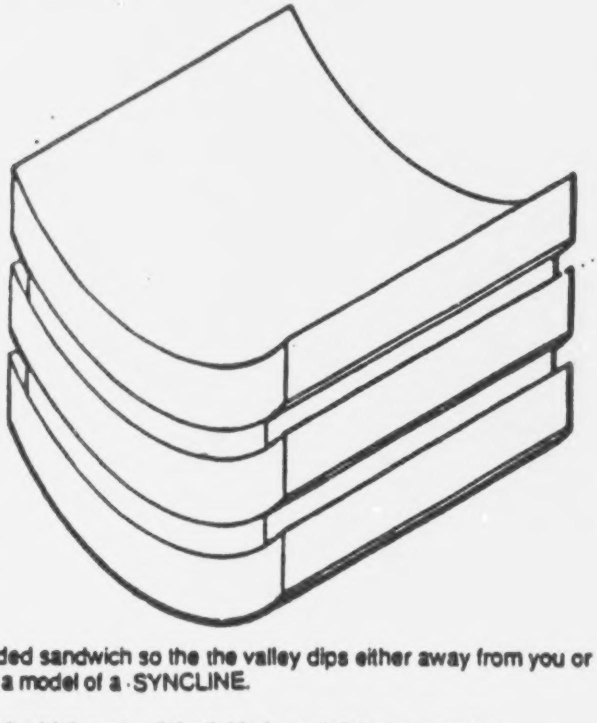
F In summary, write a general rule for the age of a given layer. Assume that (1) the layers were deposited in order, one after the other, and (2) the layers have not been turned over,

Answer: Students may express this idea differently. The layers on top are the youngest and those on the bottom are the oldest. A given layer is younger than any of the layers below it and older than any of the layers above it. This idea is expressed by the Law of Superposition which applies to sedimentary rocks.

G. Write here the name of the law which states the age relations of rocks in a sedimentary series. (Your teacher may furnish this name or you.)

Answer: Law of Superposition

4. Gently fold your sandwich to form a trough or valley. It should look like the figure below. In geology, the structure is called a SYNCLINE.

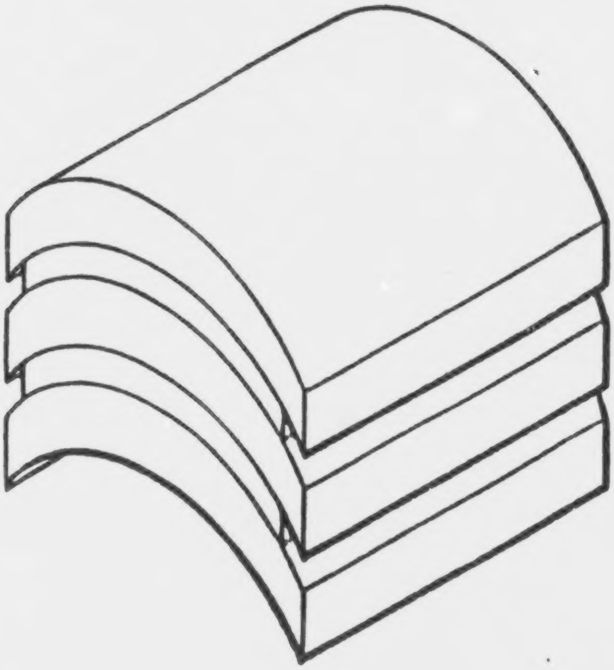


If you tilt your folded sandwich so the the valley dips either away from you or towards you, it is a model of a SYNCLINE.

If you ate all the high parts of the folded sandwich representing a syncline, would the rock in the center be older or younger than the rock on either side?

Answer: Younger

5. Gently fold your sandwich to form a ridge or elongate hill. It should look like the figure below. In geology, this structure is called an ANTICLINE.



A. If you ate all the high parts of the folded sandwich representing an anticline, would the rock in the center be older or younger than the rock on either side?

Answer: Older.

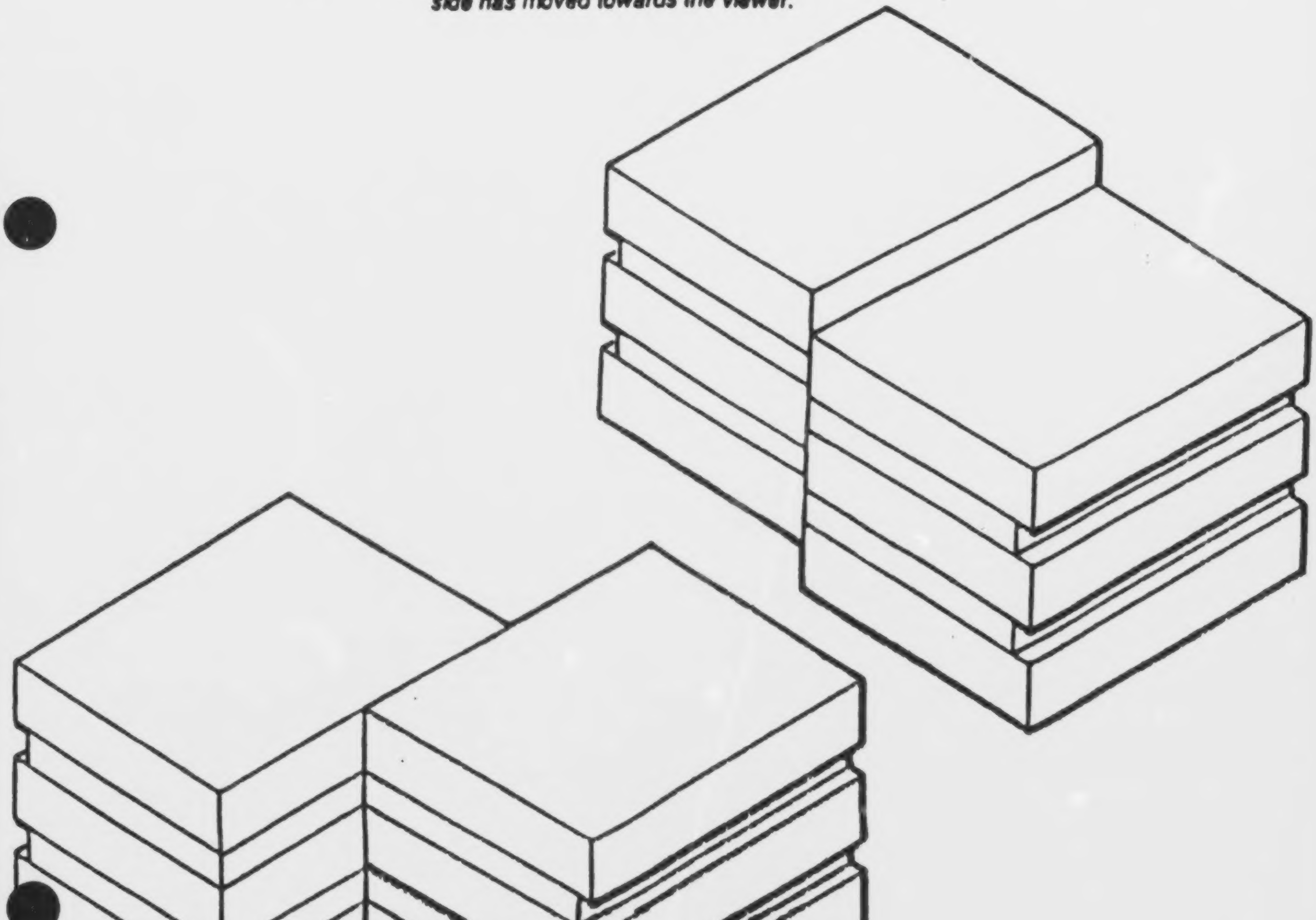
6. Cut your sandwich in half with a knife

A. If you hold the two pieces as shown in the diagram below, this is a model of a VERTICAL FAULT. What was the relative movement of the two parts?

Answer: The left side has moved up relative to the right side or the right side has moved down relative to the left side.

B. If you hold the two pieces as shown in the diagram below, this is a model of a LATERAL FAULT. What was the relative movement of the two parts?

Answer: The right side has moved away from the viewer, or the left side has moved towards the viewer.



EARTH SCIENCE / HOME ECONOMICS

LETTER WRITING IN EARTH SCIENCE

Academic Unit:

Suggest doing this activity during study of geologic history, soils, or environmental studies, etc.

Objective:

To apply the principles of effective communication.

Vocational Essential Element: LMS #9, VE #7

To apply principles of effective communication.

Science Essential Element:

1. Application of science in daily life.
2. Experience in oral and written communication of data in appropriate form.

Resources/Special Arrangements:

1. List of addresses of various middle schools in Texas
2. Texas state geologic highway map
3. Paper, pens, stamps, envelopes

Introduction:

Letter writing, in addition to being a valuable learning experience, can make Earth Science classes much more relevant and interesting. The student can gain a sense of responsibility and accomplishment while learning important communication skills and acquiring knowledge of his/her world around him/her.

Method:

1. The students will select and research the various geologic regions of Texas as to the area's rock type and age. This may be used as a cooperative learning activity, where each individual in a heterogeneous group writes a letter for a particular request.

2. The students will write to schools in the different geologic regions of Texas and request small rock samples from the region. These samples can be mounted on a Texas Geologic Highway Map. Requests for mineral and ore samples may also be included. The letter may then be edited and rewritten by the group sharing common ideas and using the combined skills of the group.

Evaluation:

Individual and group grades given for letters

Source:

Strategies for Teaching Essential Science, TEA project II, TE 67690301-03

EARTH SCIENCE / HOME ECONOMICS

LETTER WRITING IN EARTH SCIENCE

Letter writing, in addition to being a successful teaching tool, can make Earth Science classes much more relevant. Writing activities can give students a sense of responsibility and accomplishment as they learn important communication skills, the significance of the printed media, and gain social awareness of controversial topics.

Possible Letters

1. Write to schools in the different regions of Texas or the United States and request small soil samples. These can then be analyzed and sealed in vials and mounted on a plywood map of Texas or the United States.
2. Write to schools in the different geologic regions of Texas and ask for rock samples from the region. Small samples of these can be mounted on the Texas Geological Highway map. Mineral and ore samples are other possibilities.
3. Write to schools on the sea coasts (Texas, the Gulf coast, along the West and East too. Include all the Hawaiian Islands) for small beach sand samples. These can then be analyzed and sealed in vials and mounted on a map.
4. Write to schools in selected areas asking for pictures of landforms or geological formations in their area.
5. Write to schools in areas where small fossils are found and ask them to send some specimens. Identify the specimens and attach them to a geological highway map to show their location.
6. Write to some students in a school in the vicinity of an environmental concern to learn about it first hand. They might request local newspaper clippings on it, and ask specific questions which they would like answered. These could include such events as flooding, earthquake, volcanic eruption, drought, severe winter storm, tornado, hurricane, environmental problem (acid rain, air pollution, hazardous wastes, water pollution, swimming being banned, etc.).
7. Write to schools in various regions of the state to find out about the local environmental problems of their area and community.

8. Write to local experts in various fields, inviting them to come to class to speak on topics of concern or study. These could include regional weather service, soil conservation office, local water district, legislator, nearby power plant, etc.

9. Write to administrators at national or state parks to obtain information on the park's unique geologic features.

10. Write conservation organizations regarding pollution and conservation problems.

11. Write the National Weather Service, Soil Conservation office, National Oceanic and Atmospheric Administration, NASA, U.S. Geological Survey, etc. to learn what information (printed, films, etc.) they have available. Include energy companies and mining operations.

12. Write to various mining companies and request information on how a mineral or ore is mined and request a small sample of the ore.

13. The students may exchange letters with another class discussing environmental issues; i.e., exchanging letters with a Canadian school on the acid rain problem, with a California school on mud slides or earthquakes, etc. They may want to exchange letters with schools in different climatic regions discussing their climate and how they live in it. Or they may want to discuss the geology of their regions and its relationship to the cultural features of the region and the economy.

14. The students may want to write letters to editors of local newspapers discussing concerns about the quality of the environment. They may wish to include their legislators (local, state, and federal) in their correspondence on concerns regarding the quality of the environment.

The names and addresses of all the schools in Texas are listed in the Texas Education Agency's Texas School Directory, which is probably available in local school administration offices. Address the letters to the Earth Science classes.*

NOTE: When requesting samples of rock, fossil, or soil -- or photographs, enclose a special shipping package, self-addressed and stamped with enough postage to cover shipping. A small vial for soil samples might also be helpful.

* Keep a file on teachers willing to participate for future use. This could help establish a network of teachers from across the state.

Reference:

Stiles, John. "The 'Write' Stuff in Earth Science," Science Scope, 10(5):25-26. April/May 1987.

HOMEMAKING / SCIENCE

Academic Unit: Nutrition

Lesson Topic: What nutrients are in various foods

Objective:

Use of laboratory, equipment and to become familiar with various nutrients.

Resources/Special Arrangement:

Collect food sample and set up equipment for test. This can be done as a demonstration or as a lab.

Introduction:

-- What are some ways I can determine what nutrients are in the potato? Today we are going to conduct some simple tests for the presence of some major nutrients in a food.

-- Explain that food chemists use more complex tests and instruments to reveal the composition of foods.

-- Discuss why it is important that information about the nutrients in food products be made available to consumers and health care professionals.

Method/Learning Activity:

Complete the attached lab sheet.

Summary:

Which foods had starch -- sugars, protein, fat, minerals, Vitamin C?

Evaluation:

How can you use this information learned today in choosing your daily diet?

HOMEMAKING / SCIENCE

LABORATORY TESTS FOR NUTRIENT CONTENT

Listed below are lab experiments to test for nutrients present in foods:

To find Starch (complex carbohydrates)

1/2 teaspoon iodine solution
1/2 cup water
Place several drops of the solution on the food; if the solution turns purple, starch is present.
Suggested foods to test: potato, rice, apple, cheese

To find Sugar (simple carbohydrates)

Put food in test tube. Add 1 oz. Benedict's solution. Heat. If solution changes from blue to red-orange, sugar is present.
Suggested foods to test: table sugar, honey, whole milk, skim milk

---

To find Protein

Burn food on a piece of aluminum foil. The smell of burning feathers will tell you it is protein!
Suggested foods to test: meat, chicken, lettuce

To find Fats

Rub food on a piece of brown or white wrapping paper. Let dry. Hold up to light. If the paper is greasy, fat is present.
Suggested foods to test: bacon, well-marbled beef, pork, chicken, potato

---

To find Minerals

Mash any food. Burn on a piece of aluminum foil. If a gray ash remains, minerals are present. Minerals do not burn!
Suggested foods to test: milk, dry beans, enriched bread, potato

---

To find Vitamin C

2 cups water
2 tablespoons cornstarch
Boil 3 minutes and cool. Put each food to be tested in a separate cup. Add 1 drop of iodine to 1 teaspoon of mixture above, and pour in each cup. If the solution turns clear, vitamin C is present. The more drops of iodine needed to clear the solution, the less vitamin C in the fruit.
Suggested foods to test: orange, strawberry, cantaloupe, apple, peach, potato, hot peppers

HOMEMAKING / SCIENCE

Academic Unit:

Review: Have the lesson the day before beginning review for the semester or while studying careers.

Lesson Topic: Realizing my potential

Objective:

Help the students prepare for the future by becoming aware of his/her potential.

Life Management Skills Objective:

Identify employment options in home economics careers

Science Objective:

Evaluate the career implications of earth science

Resources/Special Arrangements:

You will need various career information -- science careers or home economics careers.
Newspapers -- careers or employment sections

Introduction:

You have a great potential! Define (help the students recognize some of their potential by reviewing what they have learned this semester -- highlights).

Methods/Learning Activities:

Discuss with students that today American youth have more independence and more rights than ever before. Compare the classrooms today with those in history (early 1900s).

With all the independence also comes more responsibility. Approximately 25% of all children live in single-parent families. At least half of two-parent families have both parents working. This means you have to learn to do more things earlier.

HOMEMAKING / SCIENCE

Questions:

-- How does this trend affect the development of your potential?
-- What basic skills are you acquiring?
-- What are some skills you have acquired from this class?
-- Where else beside the home and school can you acquire skills to more fully develop your potential?

Chart these answers on the chalkboard: (line, bar or graph)

-- What do you see as being most important to you as you think of your future?

1. family
2. friends
3. good job
4. money
5. leadership
6. do not know

Optional Expansion:

Use a bulletin board, entitling it, "Notes and Quotes that Inspire." Have students look through Reader's Digest or other sources and write down poems or quotes that inspire them to keep trying!

HOMEMAKING / SCIENCE

ACTIVITY SHEET
"MY FUTURE"

My future begins today:

Write down three things you like to do and are good at doing.

1. ____________________
2. ____________________
3. ____________________

Read through the employment advertisements in a newspaper. Cut out one advertisement that really interests you. Attach the advertisement below. Use it to complete the questions.

1. What are some skills I would need to do this job? ____________________

2. What are some of the ways I could prepare myself now to do this job in the future?

3. List some other jobs that are similar. ____________________

4. This job interests me because ____________________

5. I expect my future to be like ____________________

6. What does "developing your potential" mean? ____________________

HOMEMAKING / SCIENCE

Academic Unit: Consumerism

Lesson Topic: Advertisements

Objectives:

Identify internal and external influences on resource management.

Resources/Special Arrangements:

1. Advertisements from magazine, or T.V. (VCR) tape of various T.V. advertisements
2. Handout

Introduction:

Have you ever been interrupted from you favorite T.V. program by a commercial? Horrors! We are bombarded with advertisements every time we pick up a magazine or watch T.V. Do some advertisements appeal to you more than others? Why?

Today we are going to view some of your favorite or least favorite advertisements. (Time: 1 class period)

Method/Activity:

Students should observe several advertisements and describe or list the appeals or approaches used to sell the product or service. List on chalkboard or on the overhead.

1. Students should identify different approaches. Complete handout.

2. Discuss the approaches used for beverages. Are they different from the approaches used for cereals?

3. What advertisements provided the most information and the least information that was useful?

4. Identify the advertisements that appeal to you the most, the least.

Application:

If a new cereal was developed next month, what features or appeal would you expect the advertisement to use?

Choose a product - design an advertisement, container or label.

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ADVERTISEMENTS

Examples of Types of Ads	Taste	Fitness Appearance	Cost	Snob Appeal	Macho Ad	High Performance
Cigarette						
Suntan Lotions						
Cosmetics						
Hair Products						
Food						
Clothing						
Computers						
Cars						
Detergents						

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Academic Unit: Environmental Studies

Lesson Topic: My H_2O Environment

Objective:

Science Objective

The students will realize the importance of preserving our natural environment

Life Management Skills Objective

The students will recognize and demonstrate procedures for providing a safe environment

Resources/Special Arrangement:

1. knife
2. apple
3. handouts
4. overhead projector for transparencies

Introduction:

You are just one person of all the millions that are in this world. When you were born, your family and home was your world. As you grew older your world became larger by adding your neighborhood. Then going to school really opened a new world. All these places, things and people in your world are called your "environment."

Your environment is filled with resources. Resources are those things and people that help to get what you need to survive and experience well-being. These resources must be preserved to maintain human life.

Time: 1 class period

Method/Learning Activity:

Water is a precious resource -- a part of your natural environment. Your body needs water to function. The average person needs 2 1/2 quarts daily (complete handout "I'm Thirsty," page 314). Even with this great need for water, many people waste this precious resource. Wasting water is expensive. It costs your family money (complete handout, "Water Bill," page 315). Because you can change the environment, you need to learn ways to protect the environment from the misuse of our natural resources -- water.

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Activity: Demonstration by teacher or each student

Water is a precious resource. Nearly three-fourths of our earth is water.

1. Using an apple (something similar), pretend it is the earth.
2. Cut the apple into quarters.
   a. One quarter represents the land (set aside, cannot drink the land)
   b. The next two quarters represents the oceans (set aside, cannot drink sea water because of the salt present -- 97%).
   c. Last quarter represents the earth's fresh water supply (2.8% with 2.2% in frozen ice caps and glaciers).
   d. This last part represents the drinkable water for our world.
3. Slice away part of the apple each time

Discussion:

How can you conserve water?

Brain storm:

1. Fix dripping faucets.
2. Flushing toilets unnecessarily
3. shower instead of bathing.
4. Do not run dishwasher when only half full.

"What causes water to be unfit for drinking?" (transparency, page 313)

1. ground water polluted by toxic waste
2. old systems waste can enter
3. system of monitoring water supply for germs, etc.

Optional Expansion:

Speakers from city or county water management or an environmental specialist

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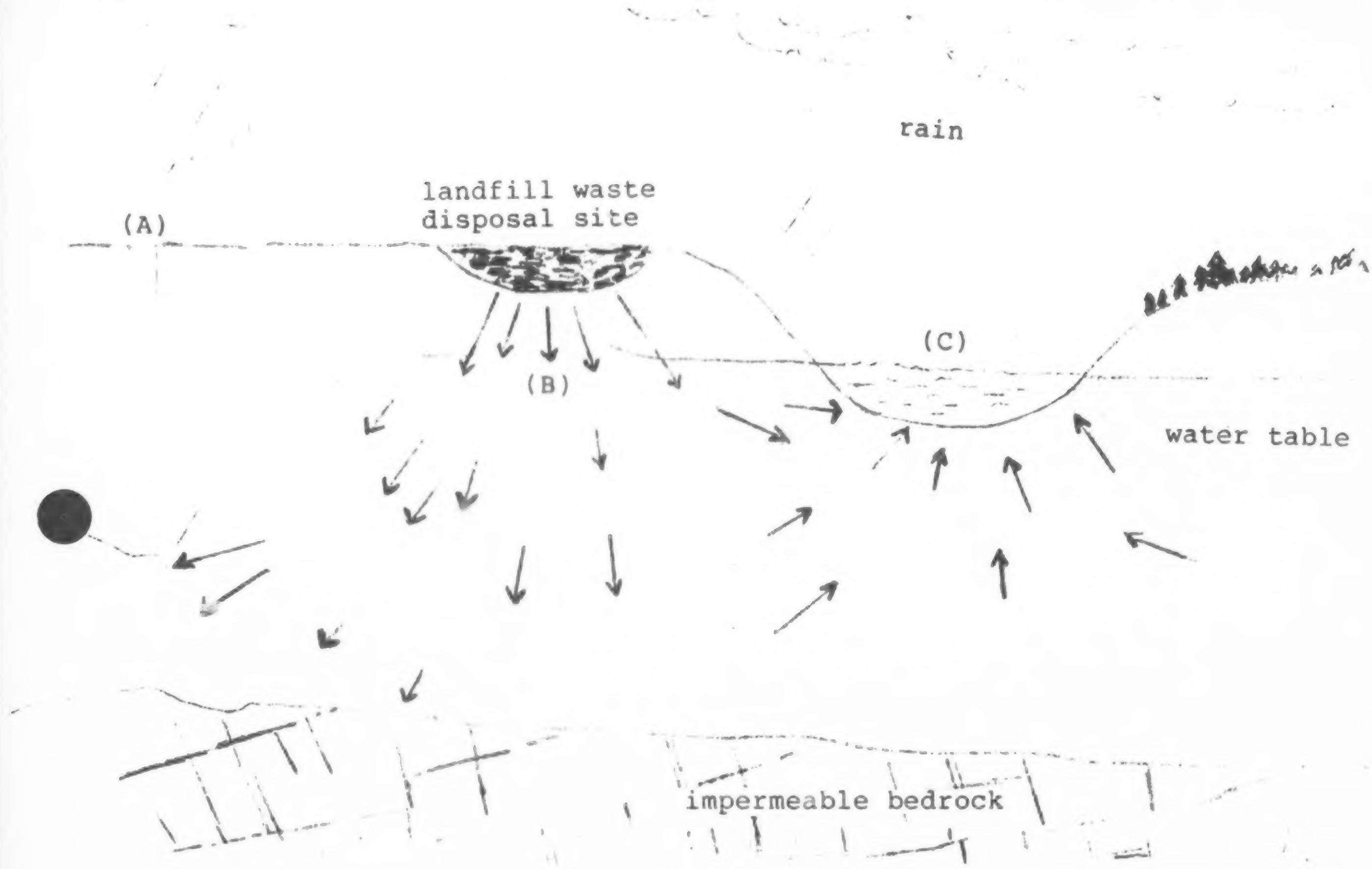
"WHAT CAUSES WATER TO BE UNFIT FOR DRINKING?"



This diagram shows how ground water may be polluted: Waste products are often buried in landfills. Rainwater seeping through the wastes become polluted. When the polluted rainwater reaches the water table it contaminates the ground water. Since the soil in the landfill is loose, it allows water to infiltrate quickly. A mound (B) develops in the water table beneath the landfill. This causes the polluted water to flow downward and outward in all directions spreading the pollution as shown by the arrows.

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Name______________________________ Class____________ Date___________

I'M THIRSTY

1. An average person needs about 2.5 liters of water a day to live. How much water does a person need in a year?

   Calculations:

2. How much water does your class need in a day?

   Calculations:

3. How much water does your family need in a year?

   Calculations:

Answers:

1.______________

2.______________

3.______________

Name______________________________ Class____________ Date___________

WATER BILL

1. An average household uses 38,000 liters of water a month and the cost is $.50 per 1,000 liters.

   How much is the water bill at the end of the month (30 days)?

   Calculations:

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Name______________________________ Class____________ Date___________

EVALUATION

Read the following situation and answer the following questions.

> Carlos and Ricky took a walk to the pond near the school. They saw pop cans and fast food containers on the path and along the shore. This greatly concerned the boys because they liked to fish there on Saturdays.

1. What can Ricky and Carlos do immediately to protect their environment?

2. What can they plan to do to help protect this natural resource?

3. Why were the boys concerned? Is their concern important?

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Academic Unit:

Food preparation terms -- following a recipe
Effects of altitude on boiling point

Lesson Topic: The higher you go, the longer it takes to cook

Objective:

The students will relate cooking times and procedures to altitudes. They will follow a recipe to cook vegetables applying science to daily life.

Resources/Special Arrangements:

1. Recipe/Information sheet on vegetables (review previous lesson on vegetables)
2. Will need thermostatic-controlled frying pans for cooking vegetables on Day 2 (experiment)
3. Several empty food boxes with high altitude recipes
4. Lab plan sheets. Need to know elevations of Dallas, Denver and Galveston.

Introduction:

Two groups of students were camping at different locations. They begin preparing their evening meal. The DALS built a fire, prepared the potatos and carrots and put them on to cook. The DENS did the same. After a short time, the DALS tested their stew and found it ready to eat. The DENS tested theirs and found the carrots were not done.

Why should there be a difference?

Theories of explanation:

1. They were not boiled for the same amount of time.
2. Carrots and potatoes were tougher.
3. One fire was hotter than another.
4. Something else was added.
5. One was cooked in hot water at the start.

Examine the empty food boxes and directions for cooking. At higher altitudes, the air pressure is less so the boiling point is higher. To be thoroughly cooked, the vegetables must boil for a longer time because the boiling water is cooler than at lower elevations. (Compare elevation of Dallas and Denver.) Compare the atmosphere (sea of air) to water. The deeper you go down in water the more pressure. Relate this to the amount of air (in the valley, or sea level, more air is over us).

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Study and discuss recipe for preparing vegetable stew. Prepare lab plans for vegetable stew. Alter recipe to cook at 95 C (200 F) instead of 100 C (212 F).

We used frozen vegetables and followed packaged directions for 2 groups. I altered temperature and times on other groups (cooked longer after testing).

Anticipated Questions:

1. Did they cook the stew the same amount of time?
2. Was something else added to the water?
3. Were the camps located at different altitudes?
4. Was the air pressure different?

Following Day (Day 2)

Working in four groups, the students will follow recipes and lab plans (two different recipes) to cook a vegetable stew.

Evaluation:

1. Explain why after boiling an egg for 10 minutes in Dallas, it is hard boiled, while in Denver the egg turns out to be "runny".

2. What does the term "clean vegetables" mean?

3. How can you tell if a vegetable is tender?

4. Why should vegetables be boiled with a cover?

5. What does the elevation of where we are have to do with cooking times?

6. Do you think the vegetables would cook faster if we were in Galveston? Why or why not?

COOKING VEGETABLES

All good chefs know how important vegetables are to meal planning. Vegetables are like the supporting actors in a movie. Meat dishes are usually the "stars", but how much fun would a movie be with only one actor? Vegetables play the other "roles" in your meal.

The first rule of vegetable cooking is "don't overcook". Whether boiled, steamed, baked or fried, vegetables readily lose their taste and eye appeal as well as their important vitamins and minerals when they are overcooked. Cook vegetables until barely tender and still colorful. The cooking time varies with the kind and quantity of vegetables being cooked.*

Vegetables add color, texture and flavor to any "showtime" meal along with their valuable nutritive elements.

Fresh vegetables

1. Clean vegetables and cut into small pieces.
2. Place in a saucepan with straight sides and a tight-fitting lid.
3. Pour 1/2 cup water into saucepan.
4. Cover the pan and place on surface unit.
5. Turn control and heat vegetables until water begins to boil.
6. Turn to LOW to continue cooking the vegetables.
7. Cook just until tender.

Frozen vegetables

1. Put 1/4 cup water and 1 teaspoon salt in a saucepan with straight sides and tight-fitting lid.
2. Place pan on surface unit, turn control to HIGH and bring water to a boil.
3. Add frozen vegetables, cover and turn control to LOW.
4. Cook for about 10 minutes or until just tender.

NEVER, NEVER: Cook vegetables without a cover.
Let vegetables boil and boil.
Thaw frozen vegetables before cooking.
Cook vegetables for more than one meal.

* What happens when vegetables are overcooked?
They loose their shape and texture, lose nutrients and flavor and turn an unpleasant color.

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Academic Unit: Metric Measuring

Lesson Topic: Measuring Length

Objective: Learning to use the metric system

Essential Elements -- Earth Science

Experience in concepts and skills of measurement using relationships to standards.

Essential Elements -- Vocational Education

#13 - Apply required methods and sequences when performing tasks.

#14 - Apply principles of time management and work simplification when performing assigned tasks.

Goal:

The student will construct a metric tape measure and measure the various parts of their bodies in the metric system.

Resources:

Prepared data sheet and small metric ruler
Metric stick, inexpensive gift wrapping ribbon (1 cm. wide)
(each team of 2 will need 1 meter of ribbon)

Introduction: (5 minutes)

The metric system is easier to measure in than the English system. Why? (The English system is a decimal system based on 10's, 100's, and 1,000's, etc.) You probably have some idea of your height, waist, and weight in the English system, but do you know your metric measurements?

Method: (30 minutes)

1. The students will work with partners of the same sex.

2. Each team will construct a flexible tape measure by copying a meter stick onto a ribbon. Copy only the centimeter and half-centimeter marks.

3. Provide a data table for the students to record the following: (see example #1)

   - head
   - chest (quietly tell girl teams to face the wall and have their partner hold the tape behind them)
   - waist
   - hips
   - biceps
   - feet (heel to toe)
   - height (suggest students measure against the wall)

4. Divide the measurements of your head, chest, waist, and hips by 8. Round off each answer to the nearest whole number and record on the table (see example #2).

5. Using the data from the above #4 procedure, mark off the distance on both sides of the center line (see example #3).
   Note: Let 1 cm = 1 mm for the drawing.

6. Connect the line ends to make a box figure of your body. You will look like a robot.

Summary: (5 minutes)

Have one student write each students height on the board. Have another student use calculator to average the girls' height; boys' height.

What is the main reason the metric system is easier to use than the English system?

____

____

Why should the United States use the metric system?

____

____

Evaluation:

Take up data sheets and questions for grading purposes.

1. What was the average girls' height?____________________________
2. What was the average boys' height? ____________________________

How did you compare in height? Are you small, average, or large?

____

Optional Expansion:

Convert the metric height to the more familiar English system (2.54 cm = 1 inch) and then remeasure height to check for accuracy.

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METRICS? WHAT'S MY SHAPE?

Example #1

Head	Chest	Waist	Hips	Biceps	Feet	Height
cm	cm	cm	cm	cm	cm	cm

Example #2

Head	Chest	Waist	Hips
cm	cm	cm	cm

Example #3